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Virginia MEDICAL MONTHLY

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CONTENTS

Guest Editorial. H. B. Mulholland, M.D. ---------- 55

Review of Fractured Hips, M. A. Johnson, Jr., M.D., F.A.C.S., Roanoke, Va. ---------- 58

Ocular Changes in the Metabolic Diseases. I. S. Tassman, M.D., Philadelphia, Pa. ---------- 70

Streptomycin in Acute Brucellosis—A Case Report. Sidney G. Page, Jr., M.D., Meyer Perchonock, M.D., and John Powell Williams, M.D., Veterans Administration Hospital, Richmond, Va. ---------- 75

Treatment of Bacterial Pneumonias. Harry Walker, M.D., Richmond, Va. ---------- 78

Health Problems of Negroes in Richmond. Zenobia G. Gilpin, M.D., Richmond, Va. ---------- 80

Myasthenia Gravis—Two Case Reports. H. Clarkson Meredith, Jr., M.D., Clifton Forge, Va. ---------- 84

Management of Thyrotoxicosis. Elam C. Toone, M.D., Richmond, Va. ---------- 87

Two Interesting Ear Cases. Albert G. Schnurman, M.D., Roanoke, Va. ---------- 89

Coordination of Urban and Rural Public Health. C. Howe Eller, M.D., Dr. P.H., Richmond, Va. ---------- 90

Continued on page 6.

February, 1948

XUM

Several Million Americans

*are probably affected by riboflavin deficiency and not a few of them are in the highest stratum of society**

Virginia Medical Monthly

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RICHMOND, VA., FEBRUARY, 1948

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GUEST EDITORIAL

The Practice of Medical Economy

THE Virginia Council on Health and Medical Care is composed of 49 agencies interested in the field of health and medical care. It was formed on January 8, 1946 with this declared purpose: "The Council shall endeavor to promote better health and medical care throughout the State by serving as a clearing house for both agencies and individuals, through coordination of effort, through education of the public, and through special projects which may be adopted from time to time as the changing needs of the Commonwealth may require."

The Council came into being through the efforts of a group of agencies interested in rural medical care, and special medical programs, which realized that some central agency was needed through which their interests in an overall health and medical care program could be pooled.

The 1948 session of the General Assembly of Virginia will have upon its legislative agenda a far-reaching program in the field of public health and medical care, that will address itself basically to the causes of the State's low standing in most of the phases of the problem. The Council will give its support to this program which will be discussed in some detail in this paper.

Considerable progress in the field of medical legislation was made at the 1946 session of the legislature, and what was then accomplished can be taken as an earnest of the genuine interest of our legislators in health problems and their desire to apply fundamental remedies. The establishment of the Bureau of Cancer Control in the State Department of Health was a progressive step. Actually, we have not had accurate statistics concerning the prevalence of cancer in Virginia, nor do we know with complete accuracy how effectively we have been treating it. We are now accurately registering cancer cases, and we shall be able to study more comprehensively the effectiveness of the treatment programs we are employing. No State that has been willing to provide for the last biennium a $600,000 fund for the hospitalization of the medically indigent on a matching basis which actually provided $1,200,000, could be said to be at all unmindful of its obligations to provide for the treatment of its citizens. The program of providing public health service in uncovered counties has also been moving along with commendable speed during the past two years. The 100 counties of the State were only 50 per cent covered on January 1, 1946. Sixty-seven of the counties are now covered, and 14 additional counties have put up their share of funds for health unit service. It has not yet been possible to open any of the units for the 14 counties that have come forward with their funds ready to match the State appropriation for operating costs, because of the shortage of medical personnel. Governor Tuck has demonstrated his interest in continuing the health and medical care program until we have stopped the great waste of public energy and the great economic loss that results from preventable illness and death.

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If the General Assembly moves forward with the tuberculosis control and treatment program, so that we can approach the "irreducible minimum" in the death-rate from this disease it will not only be practicing good medical economy, but sound public economy. Tuberculosis often involves a long and costly illness, and can so strike at a home that it can disrupt the life of an entire family. The tuberculosis treatment program in Virginia has become involved in a circle of unfortunate consequences. We have had an insufficient number of beds in our State sanatoria, and though our case-finding facilities have greatly improved in recent years, we have been handicapped in getting our early cases under treatment. While the early cases have been waiting for admission to the sanatoria and effective treatment, they have too often become advanced cases. The sanatoria have also, of course, suffered from the general shortage of physicians and other trained medical personnel.

The State Health Department is recommending that the number of beds in the three State sanatoria for the treatment of tuberculosis be increased by a total of 580. Included in this number would be 300 beds to be placed in an entirely new hospital for the treatment of Negroes suffering from tuberculosis, which would be located somewhere in Eastern Virginia where the death-rate from the disease among all elements of the population is the highest. State Health Commissioner Roper has also placed in the budget of his department a sum sufficient to subsidize 100 out of a total of 535 beds in the five municipal sanatoria for the treatment of tuberculosis, so that these beds will be at all times available to State patients.

Statistically, the incidence of tuberculosis is receding year by year, while on the other hand, our aged population is increasing and, therefore, the State has made a logical approach in visualizing the use of beds now allotted to tuberculosis for chronic diseases of the aged. It is estimated that whereas we now have only approximately 9,000,000 people over sixty years of age in the population, by 1960 we shall have 15,000,000 people in the nation of this age and older.

There were, at the latest count, a total of 11,357 patients in the seven state hospitals for the mentally ill and there were only 20 physicians to treat them. This is a ratio of approximately one physician to every 600 patients. Obviously, with such a shortage of physicians and psychiatrists in our State hospital system, we can do no more than provide asylum or custodial care for the mentally ill. Dr. Joseph E. Barrett, Commissioner of the State Department of Mental Hygiene and Hospitals, has said that with adequate psychiatric treatment available, 10 per cent of the present population of the State hospitals could soon be discharged. Even more strikingly, he has pointed out that if the complement of 45 physicians and psychiatrists authorized for the seven State hospitals could by some miracle of grace be placed in service on the wards of his hospitals, it would be possible to discharge 60 per cent of every 100 patients admitted with acute psychiatric disorders within six months of their commitment, and that of the remaining admissions, 40 per cent could be discharged within the next six months.

Tremendous savings could be effected for the State in the care of the mentally ill if the State hospitals could be adequately staffed. In 1937, the State was providing a per diem of 42.4 cents per patient in the State hospitals for all care. The per diem had reached 99.9 cents per patient in 1947, but rising operating costs have actually absorbed the increased appropriation. The budget for the State Department of Mental Hygiene and Hospitals for the next biennium will be $15,000,000. The General Assembly must realize that the services of psychiatrists come high, and that it must

compete in a highly competetive market for their services. These psychiatrists will be worth far more than their services cost in the reduction of the amount of chronic mental illness in Virginia.

Dr. Barrett has made his administration of the State Department of Mental Hygiene and Hospitals notable by the emphasis he has placed upon preventive mental medicine. There are eleven mental hygiene clinics in operation in the State at the present time. The number must be increased so that the early case of mental illness can be seen and treated, before it becomes necessary to commit the sufferer to a State hospital.

The Division of Hospital Survey and Construction has just completed a comprehensive study of general hospital facilities in Virginia and has made a report recommending a long-range program to meet medical care needs in this field. The survey report, made under the auspices of the State Advisory Hospital Council, divides the State into base areas, intermediate areas and rural areas for the purpose of planning the construction of hospitals, medical service centers, and health centers throughout the State. The study was made in order that Virginia might carry on a program for the construction of hospital and medical care facilities under the provisions of the Hill-Burton Act. Under the terms of this Act, the Federal Government will make grants of one-third the initial construction costs of approved projects. The sum of $2,200,000 has been authorized for allocation to Virginia under the provisions of the Act, for the first year program of construction. If the State and localities match this Federal fund, a hospital construction program amounting to $6,600,000 will be undertaken in Virginia immediately. A five-year construction program is contemplated under the Hill-Burton Act, but the plan is essentially a long-range one and may cover a much longer period.

One of the chief reasons for the reluctance of young general practitioners to settle in rural areas of the State to practice medicine is the lack of adequate clinical and laboratory facilities. The provision of these facilities should encourage more medical students to enter general practice, and thus contribute to the solution of one of our basic problems in the whole field of medical care.

The program which has been briefly outlined above, will cost a good deal of money, and it may even necessitate an increase in taxes. Even if an increase in taxes is necessary to finance a program of adequate medical care, this will be justified in the practice of good medical economy.

H. B. MULHOLLAND, M. D., *Chairman,*
Virginia Council on Health and Medical Care

XUM

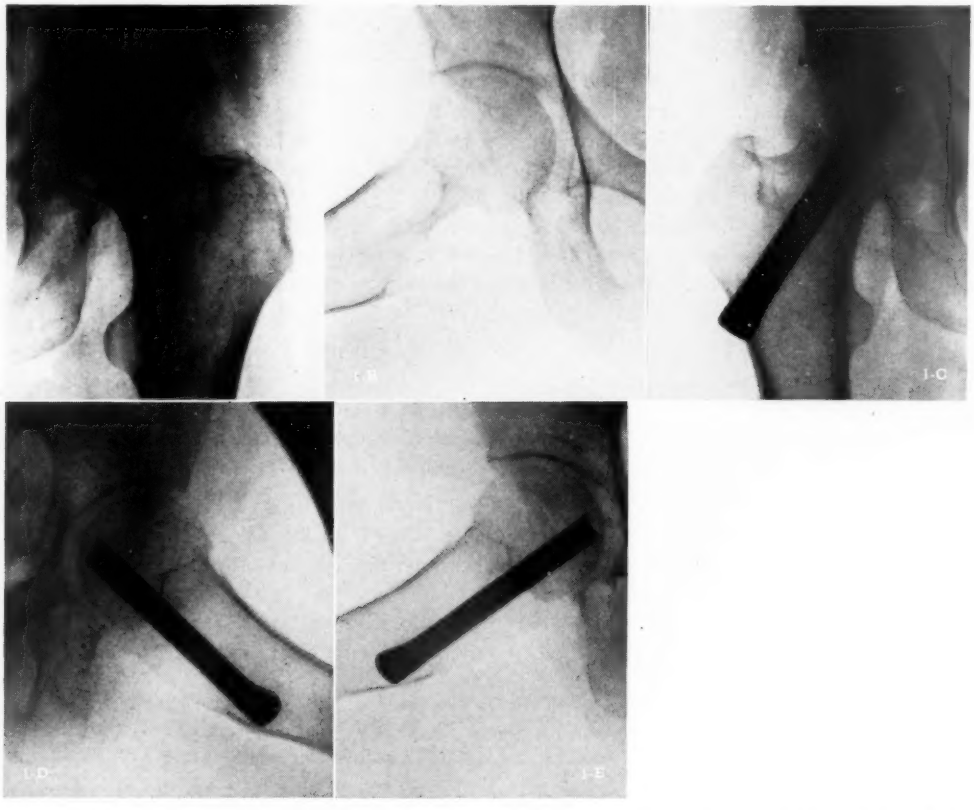
REVIEW OF FRACTURED HIPS

M. A. JOHNSON, JR., M.D., F.A.C.S.,
Roanoke, Virginia.

This is a review of the fractured hips treated at Lewis-Gale Hospital since I was discharged from the Army in November, 1945. Dr. Fred F. Davis, Dr. E. R. Troxler and I have been closely associated on these fractures. The doctor in charge of the patient seeks consultations and assistance from the other two, as he desires, but the doctor in charge of the patient takes the responsibility for the procedures and care of the injured person.

The purpose of this paper is to show by illustration some of the things which might go wrong, and why, in operative procedures for fractures of the hip; and to advance a two-pin procedure for consideration. There is no doctor who has treated fractured hips or done major surgery who does not have some cases where things were not quite right, that he could show to others, which would be more beneficial than showing perfect cases.

The January, 1947, issue of *Journal of Bone and Joint Surgery* carried several articles well worth reading—"Complications of Fractures of the Neck of the Femur", by a doctor from the Willis C. Campbell Clinic, Memphis; (2) "The Pathology of Ununited Fractures of the Neck of the Femur", by doctors from the Department of Surgery, University of Chicago, and (3) "Complications of Old Fractures of the Neck of the Femur—Results of Treatment by Vitallium-Mold Arthroplasty".

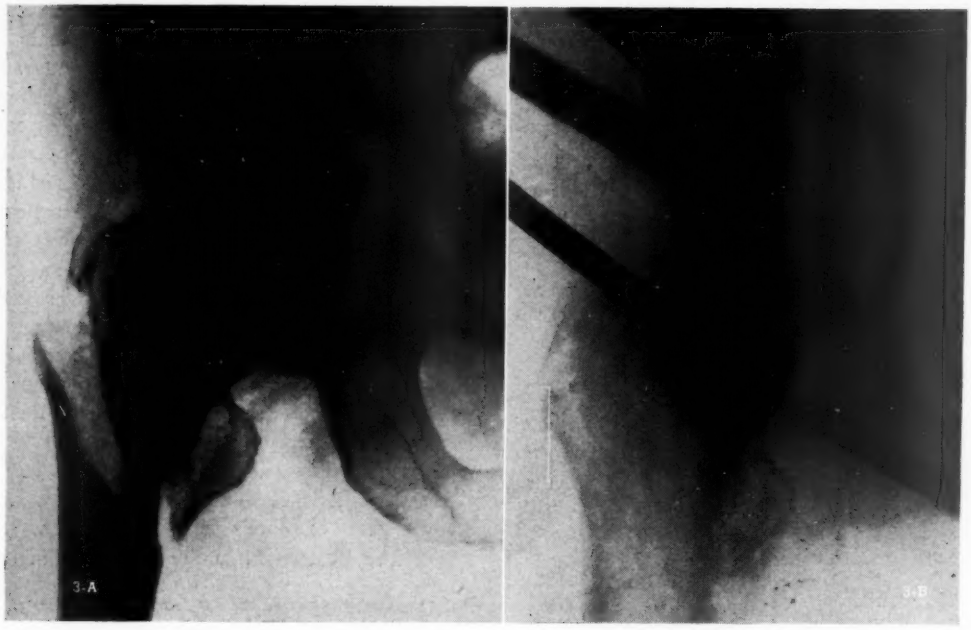


The final determination of correctness of the method of treatment cannot be made on a series of forty-four cases, as reviewed here, but the end-result can be fairly well indicated in the majority of them

by the first few months progress. The true evaluation cannot be made until the end-result is obtained, which may be three or four years, for clinical examination and routine x-ray may show complete union in six to twelve months but another examination two years later may show absorption and disintegration of the hip.

Here are a few facts which may be of interest. In 1946, the Industrial Clinic of Lewis-Gale Hospital treated 1435 fractures. Of this number 26 were fractured hips, or approximately 2 per cent of all fractures treated. Of the forty-four cases reviewed here, the youngest patient was 4 years old. The oldest that was operated on was 93. Seventy per cent were female. *Only one* of these fractures occurred in industry. The average age not considering the child 4 years of age, was 66 years. Fifteen of these cases were above 70 years of age. Only one of those operated on was lost as a direct result of a fractured hip. This patient was 88 years of age and had a very bad heart. He was operated on in accordance with the expressed desire of his people to take a long chance on getting the patient up, which was not unreasonable for, the less chance they have to survive surgery, the less chance they have to live at all. This patient did very well for twenty-four hours and then seemed to just grow *very tired* as so many aged do, and responded to no stimuli. The greatest amount of trauma sustained in any of these cases, except for the child mentioned, was falling several steps. Ninety-one per cent of these patients were given general anesthesia, for it is believed that with heavy sedation and general anesthesia there is *less shock* to the *aged* than local anesthesia, on account of the elimination of anxiety, fear and pain. These patients who were given local anesthesia part of the way had sodium pentothal supplemented.

Four cases were not operated on. One had an advanced heart disease, had been practically bedridden for two years and she could not be steadied from the shock of the fractured hip. She died in three days. The second had myocarditis and had



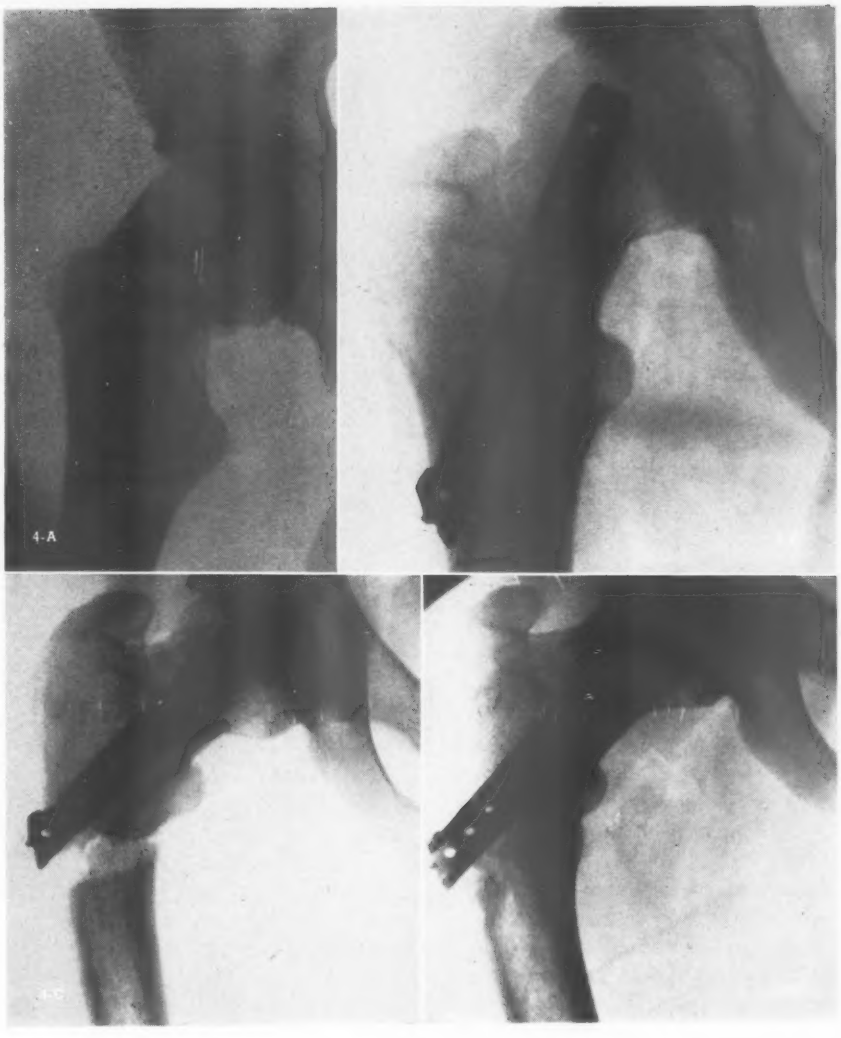
been practically bedridden with far-advanced disabling arthritis for a number of years. Medical consultants refused to agree to any operative procedure. The third was reduced by manipulation and traction; Kirschner wire was inserted in the distal end of the femur and a Thomas splint with 15 pounds traction used. She got a perfect result. The fourth was a child 4 years of age who was thrown from a jeep as it turned over. She was treated by spica cast method.

It might be said that fractured hips are comparable to delivering babies and doing appendectomies. Nothing can be easier than delivering a baby or removing an appendix; nothing can be more difficult or have more disastrous results than delivering a baby or removing an appendix, and so it is with fractured hips. An operation for a fractured hip is fraught with disaster, and creates far more tension, for the majority of the patients are elderly and have a poor health status.

The timing of an operation is very important. All of these patients are more or less in shock. With pain from injury to soft tissues and fear from the helpless eversion of the foot, they have the set-up for traumatic shock—a body injury plus fear. So shock here must be treated in the usual manner plus a reassurance (reassurance is very important when treating elderly people) to the patient that, for the majority, broken hips do get all right and that they will not be in a cast and bedridden for months. When they are first seen the necessary anodyne is given and the type of intravenous therapy started, as may be indicated. Buck's extension with about eight pounds traction is applied and a sandbag is placed against the thigh. The patient is posted for operation between 7:30 and 8:00 A. M. the following morning. Most of these cases that can be operated upon are in the best condition by that time. As a rule, each day the operation has to be postponed, after 24 hours, there is less likelihood that the patient can ever be brought to the operating table with any degree of safety. There are exceptions, such as a heart disease, which requires digitalization.

Accuracy in an operation should *never* be sacrificed for speed, is a *correct* rule. An electrocardiographic tracing is taken on all the elderly patients and, when the cardiologist warns that the patient has had a coronary or for other reasons is a poor risk, speed is the gift of God. When the risk has been great, the majority of the fractures of the neck of the femur have been done in less than fifteen minutes.

Our method of operation for a fracture of the



neck of the femur may be of interest. Most essential is a trained team, each one knowing his special job well. The patient is placed on the fluoroscopic table and is properly draped. An extra sterile sheet is kept to put over the wound when the fluoroscope is used. With a roentgenologist present; an orderly with years of experience with one hand on the ankle and one on the calf of the leg; an orthopedic nurse with her assistant ready; a doctor who has operated with you many times, scrubbed up; the anesthesia is started. The *complete setting* of the stage before the anesthesia is started is very important from the standpoint of efficiency and saving time. A sedative having been given the night before, another having been given two hours before operation and an opiate with atropin having been given forty minutes before operation, very little general anesthesia is necessary. The orderly carries the lower limb into internal rotation and abduction with traction and slight flexion of the leg on the thigh. Then a two or three inch incision is made at the base of the trochanter. A straight hemostat is placed in the wound on the anterior surface of the femur. Another hemostat is placed on the posterior surface of the femur and with the Smith-Petersen pin placed between the two hemostats the penetration of the

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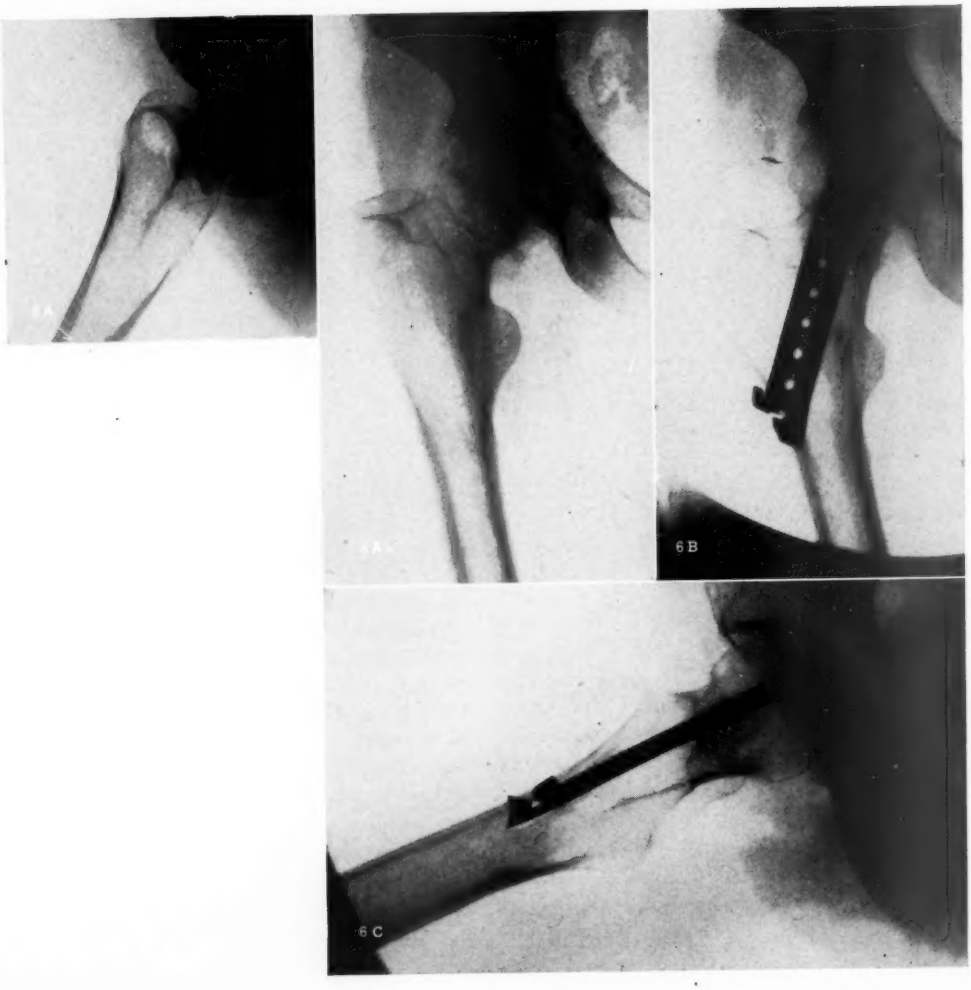
5-A
5-B
5-C


6A
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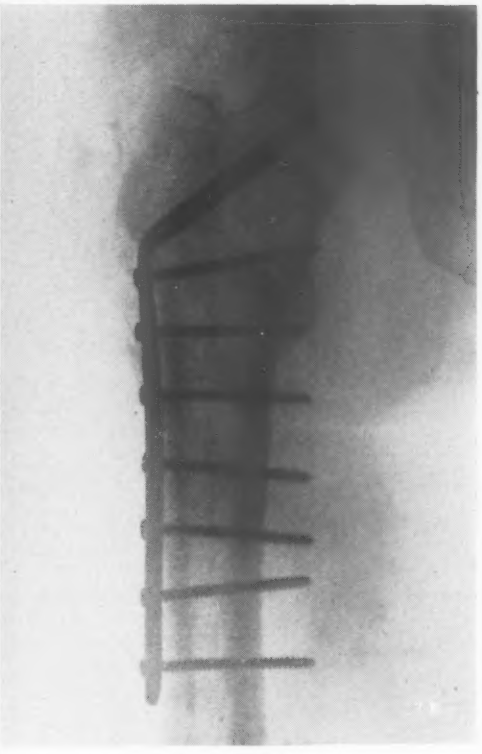


Smith-Petersen pin into the center of the femur is assured. This takes care of one angle. With the lower limb in proper internal rotation, the pin is then sighted parallel to the table for no elevation or depression is needed. Then a look is taken through the fluoroscope to determine (1) as much as possible about the reduction and (2) the exact upward or downward slant of the pin. All the angles are now taken care of. The pin is then driven through the point of the fracture into the head of the femur with another look through the fluoroscope to be sure the pin is of the right length. The anesthetist is advised to stop the anesthesia; then two or three sutures are placed through the skin, but are not tied. The White attachment to this Smith-Petersen pin is removed. It is very seldom necessary to tie off any bleeders. The limb is then carried through all motions to determine that the bite is good. The x-ray pictures are taken, lateral as well as antero-posterior pictures. The pictures having satisfied, the sutures through the skin are tied. *This* is *the procedure* when the internist *has warned* that *minutes* are *precious*. When possible, x-rays should be taken after reduction has been attempted and then again after the pin has been inserted. The time out for x-ray pictures to be taken and developed is approximately ten minutes. If the reduction is good and the pictures show there is good

bite, the pin should *never* be removed and reinserted just so as to have a good picture. There are many things which create a loss of time, such as brittle bones that will not take a pin until a drill has been used, and an usually thick hip.

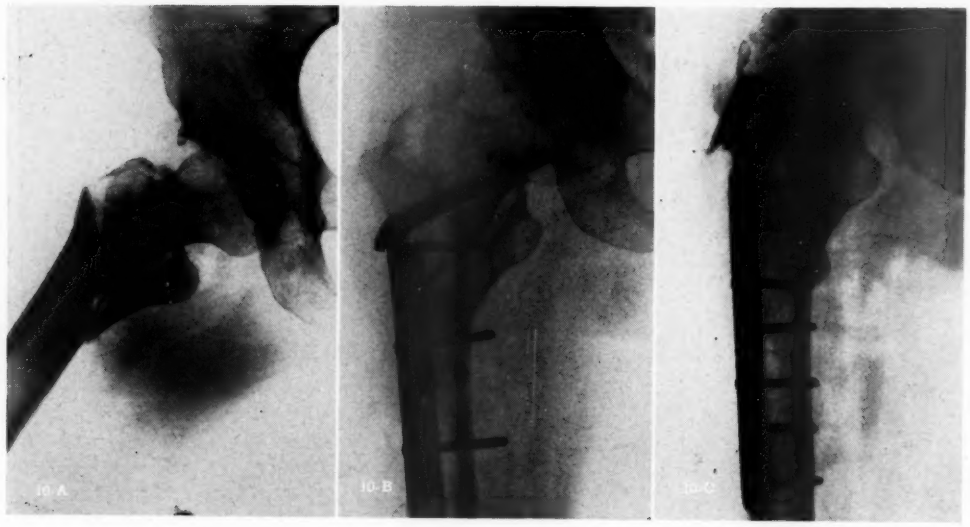
PICTURE DISCUSSION

Case 1.—This case brings out a most important point—the diagnosis. The shortening of the limb and the helpless eversion of the foot are so conclusive and so often present that the diagnosis may be missed if these classical symptoms are absent. This patient gave a history of leaning over to pet a dog, the hip gave way and she sat down. She had previously had fourteen different fractures and had become embarrassed about falling. On examination the right lower limb was carried through all motions and the only symptom she had was pain

in the right inguinal region. X-ray 1-A of the right hip was taken 9/10/46, and no evidence of fracture was found. The patient was complaining sufficiently to make it wise to hospitalize her for examination and further study. After thirty-seven days of hospital rest, we were convinced that her pain persisted, so on 10/17/46 she was re-x-rayed and on film 1-B a fracture of the neck of the femur was plainly visible. I-C, 1-D and 1-E show Smith-Petersen pin inserted. This patient had complete relief from pain and was up in a chair several days later. X-ray pictures taken this February, four months after operation, show almost complete bony union. She has always healed her fractures quickly. She walked in two months without permission. This patient's reserve was very poor, so everything was done to speed up the operation. The time from when the incision was made until the last suture was tied was 4½ minutes.

Case 2.—This case shows one of the simpler things that can go wrong. Picture 2-A shows the intertrochanteric fracture. Picture 2-B (a) is the anterior-posterior recheck after reduction and internal fixation. 2-B shows the lateral view. A Moore-Blount pin was used for fixation. These pictures show a drill broken off and left in the bone, which goes to show a drill may be imperfect, or, if perfect, may be imperfectly used.

Case 3.—X-ray 3-A shows an intertrochanteric fracture. Picture 3-B taken 32 days later shows early union. Treatment was skeletal traction by Kirschner wire inserted in the lower end of the femur. This person at the end of 90 days walked without permission. Check-up at the end of one



year showed a perfect end-result. This case is shown to bring out the fact that intertrochanteric fractures can be treated sometimes without open operation. It requires many weeks confinement to bed if skeletal traction is used; therefore, it is not the method of election if patient's general condition will permit operation.

Case 4.—X-ray 4-A shows transcervical fracture of the left femur. This patient also had multiple pelvic fractures and retroperitoneal hemorrhage. This patient, age 18, was injured in industrial work. Operation was delayed from 5/2/46 to 5/10/46 on account of fractured back. A Thompson Z nail was used. Picture 4-B shows almost complete union. This patient was permitted to distribute his weight with the use of a pair of crutches and later walked without aid of crutches. Picture 4-C shows fracture when patient stumbled and fell over a log. Traction was used for six weeks, then a hip spica was applied for ten more weeks. Picture 4-D, five months after second fracture. From roentgen ray and clinical evidence, patient was dismissed for light work with no percentage permanent disability.

Case 5.—This patient was admitted to the hospital November 3, 1946; general health poor; poor heart sounds; large ventral hernia on the left, femoral hernia on the right. Intertrochanteric fracture of left hip as shown on film 5-A. Weight 300 pounds; age 70. 5-B and 5-C show Moore-Blount pin used. End of eight weeks, patient permitted to walk with aid of nurses and crutches. Patient developed empyema of gall-bladder and died 2/5/47.

Case 6.—Film 6-A (a) is AP view of transcervical fracture, left femur, 7/18/46; 6-A shows the lateral view. Pictures 6-B and 6-C, 7/19/46, show Thompson Z nail used. Patient up in wheel chair four days after operation. Six months following surgery, patient came to hospital without crutches and stated she had not used them for one month. She had full range of motion and complete healing, with no percentage permanent disability.

Case 7.—Picture 7-A shows intertrochanteric fracture. Pictures 7-B and 7-C show hip after Moore-Blount pin was used. Patient was 79 years of age; myocarditis; general anesthesia used. This picture was shown to children of this lady and one of them made the remark that one of the screws was a little out of line, but they made no remark about the length of the screws. Measurements were made for the first screw and the second screw. No further measurements were made. Screws should always go through the distal cortex; further should be avoided.

Case 8.—Picture 8-A taken 12/6/45 shows fracture of the hip. Very questionable whether Smith-Petersen pin or Moore-Blount pin should be used. Patient was 50 years of age, very feeble. Film 8-B shows poor bite but clinically bite was sufficient. Condition of patient did not warrant prolongation of anesthesia. Picture 8-C (a) shows the AP view after pin was removed on 4/22/46; 8-C shows the

lateral view. Recheck x-ray and clinical examination on 3/17/47 showed complete healing with no percentage permanent disability.

Case 9.—Transcervical fracture, right hip as shown on film 9-A, April 10, 1946. Film 9-B shows Smith-Petersen pin used. X-ray 9-C and clinical examination show almost complete unicn. Patient walking without permission without aid of crutches.

Case 10.—Film 10-A shows intertrochanteric fracture of left hip. Film 10-B shows a broken Moore-Blount pin and collapsed hip six months after operation and one month after patient had been walk-

ing without aid of crutches. Patient gave a history of waking during the night with pain in her hip and inability to raise lower limb. Film 10-C shows x-ray five months after second operation. It shows massive bone graft and almost complete union. Patient permitted weight bearing of approximately ⅓ of body weight only. Her first fracture resulted from falling after twisting her ankle on a gravel in her driveway. Circulation and muscle tone in this lower limb is apparently as good as in the normal one, so physical exercise will be continued, and weight bearing will not be permitted until x-ray shows practically 100 per cent union. A third disaster would be too much.

Case 11.—Two-pin. Picture 11-A shows transcervical fracture of left hip. Patient 64 years of age, in very poor health, had had two strokes, talked incoherently. Before injury, could walk only by use of crutches or holding onto furniture or to some person. Two pins were used to give patient mechanical hip to protect her as much as possible—see films 11-B and 11-C. Second day after operation, she was up in a chair and at the end of five days, she was permitted to walk as she had previous to operation. This was in August, 1946. Patient walking as well as before operation and has since first week following injury.

Case 12.—Two-pin operation. Picture 12-A shows transcervical fracture of the left hip. Patient 80 years of age; had had coronary disease. Smith-Petersen pin was easily started through the cortex, then could almost be pushed the rest of the way by thumb pressure. Her ability to heal this fracture was questioned so two pins were inserted to give a mechanical hip—see film 12-B. In one week's time she was walking with the aid of crutches and a nurse assisting. At the end of ten weeks, patient showed no union whatsoever.

Case 13.—Two-pin operation. Picture 13-A shows transcervical fracture, left hip, 10/10/46. Age 68, in very poor health, myocarditis, nephritis. Two-pin method was elected—see film 13-B. Roentgen ray and clinical examination on 2/10/47 (film 13-C) showed complete union with no percentage permanent disability.

Double or triple metal fixation of hips has often been done, but the author has not seen a report of anyone using two Smith-Petersen pins. Two Smith-

Petersen pins have given more satisfaction in this clinic than any other multiple fixation of transcervical fractures. Of course, many more cases and the elapse of much time will determine the worthwhileness of this procedure.

I hope this review has interested you because to the author there is something intriguing about these fractures which look *so much alike* but are *so different*. There is *tremendous tension* when you are doing major surgery on an *elderly* person with a *minor* health status. One knows that this is an operation which gives the patient a *chance to live*, a *chance to sit up* in a chair in a few days' time, with a *probability that they will walk again*. There is a *tremendous relief* when a fractured hip is properly nailed. The *pay dirt* is reached when a surgeon is able to get one of these elderly people off the operating table, in *good condition*, and *holds* in *his hand* an x-ray plate showing the *job properly done*. He knows that he has given *another aged person* a chance to walk again.

XUM

OCULAR CHANGES IN THE METABOLIC DISEASES*

I. S. TASSMAN, M.D.,
Philadelphia, Pennsylvania.

The disorders of metabolism, like many others, scarcely ever occur singly. Because of their close relationship and interdependence, several organs and systems of the body may present manifestations of dysfunction simultaneously. The ocular lesions therefore may also be mixed in character and at times difficult to differentiate. This is soon realized when consideration is given to the close association between the proper function of the glandular system and that of the autonomic nervous system. Then, again, certain biochemical and metabolic reactions in the body, resulting from some glandular disturbance, may affect the normal state and function of the vascular system, which in turn would also result in changes to the vessels themselves and to the structures supplied. It is therefore often difficult, not only to separate the clinical evidences of one disorder from those of another, but the ocular changes may be of a mixed character and also difficult to differentiate.

Perhaps the most important metabolic disease encountered by the ophthalmologist is diabetes. Almost any of the structures of the eye may be involved in the course of the condition but the changes in the fundus resulting from changes in the metabolism and blood chemistry are seen in advanced cases especially in the retinal vessels, along the blood vessel walls and in the adjacent retina. It is important, however, to remember that diabetes often occurs in association with such other conditions as hyperthyroidism, arteriosclerosis, vascular hypertension and nephritis. The autonomic nervous system and glandular function might therefore be of some importance in relation to the occurrence of these various conditions.

From the ocular standpoint in particular, the autonomic nervous system bears a close relationship to the function of the endocrine glands as well as to metabolism. The parasympathetic system controls the ciliary muscle and with stimulation it causes contraction of the pupil, increase in the accommodation of the eye, and lacrimation. The sympathetic system governs the dilator pupillae muscle, the unstriped muscle fibres in the levator palpebrae superioris which elevates the upper lid, and the smooth muscle fibres (Muller's muscle) at the back of the eye, which are said to push the globe forward. Therefore, stimulation of the sympathetic produces decreased lacrimation, dilation of the pupil, retraction of the upper lid and proptosis or exophthalmos. A destructive lesion of the sympathetic therefore leads to constriction of the pupil by the unopposed fibres of the sphincter pupillae, drooping or ptosis of the upper eyelid and sinking or retraction of the eye, enophthalmos, as seen in Horner's syndrome.

Over-stimulation of the sympathetic system has been described as the cause of the ocular manifestations of hyperthyroidism, such as exophthalmos and its accompanying signs. Conversely, the opposite action in hypothyroidism has been said to cause the enophthalmos, conjunctivitis and decreased lacrimation. The function of the thyroid gland is to manufacture the hormone thyroxin which is carried to the nucleated cells of the body by the circulation. A sufficient amount of iodine is necessary for its formation. With a decrease in the function of the thyroid, the oxygen consumption or basal metabolic rate falls to about minus 40 per cent.

Hyperthyroidism or hyperfunction of the thyroid is often accompanied by goitre and exophthalmos. The latter is characterized by a state of accelerated tissue oxidation and increased activity of the autonomic nervous system. Hyperglycemia and glycosuria may occur in hyperthyroidism associated with diabetes. Thyroxin and epinephrine seem to produce a tendency for increase in the blood sugar.

Dysfunction of the pituary gland, also, cannot always be separated from that of the thyroid and from the changes occurring in other dependent structures. It must be remembered that included among the hormones of the anterior lobe of the pituitary is the thyrotropic hormone which influences the function of the thyroid and also an adrenotropic hormone which acts on the cortex of the adrenal and, when deficient, it causes atrophy of the adrenal cortex. The posterior lobe extracts have a marked pressor action on the blood pressure, which is considered to be produced by an intermediary action

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of the adrenal gland. Another action is its antidiuretic effect which is employed therapeutically in the treatment of diabetes insipidus.

A deficiency of both lobes of the pituitary is said to result in the condition known as Frolich's syndrome, characterized by a girdle type of obesity and sexual underdevelopment. The metabolic rate is somewhat decreased and there is an increased carbohydrate tolerance. The Frolich type of obesity, when present with retinitis pigmentosa in patients who exhibit a lowered mentality, constitutes the Laurence-Moon-Biedl syndrome. The retinal condition here also has been said to be due to hypofunction of the pituitary but this has never been definitely determined.

The internal secretion of the pancreas is considered to be insulin, which is concerned with the control of carbohydrate metabolism. Variations in the quantity of insulin produce changes in the concentration of blood sugar and when these changes occur suddenly, pyogenic infections, changes in the lens, and refractive changes may occur in the eyes. Variations in the amount of insulin with changes in the blood sugar concentration may also lead eventually to changes in the retinal vessel walls, hemorrhages in the retina and in the vitreous of the eye. The hormones of some of the other glands, such as pituitrin, thyroxin and adrenalin, may directly or indirectly have an antagonistic action to insulin and tend to balance the blood sugar level.

Arteriosclerosis is often associated with diabetes but it is very doubtful that it has any importance as a causative factor. Since diabetes is a disease occurring chiefly in middle life, it is seen at an age when arteriosclerosis might be otherwise present. It may develop earlier, however, in a diabetic patient than in others. There appears to be an excess of lipoid in the blood with an excess of lipoid also contained in the intima of the larger arteries. There is apparently little difference fundamentally, however, between the arteriosclerosis in diabetes and that which occurs without diabetes. Because of the common association of retinal arteriosclerosis in cases of diabetes, the number of those with retinal lesions far surpass those which reveal other manifestations.

The degree of relationship of some of the eye manifestations to the age of the patient, the use of insulin, and the blood sugar concentration is also of interest. It has been frequently stated in the past that ocular lesions are not as common in young diabetics as in older patients. This is probably due to the fact that the disease is so far of shorter duration, and retinal lesions, especially, will be seen if the case is followed long enough. The role of insulin in the production of retinal hemorrhages in diabetes has received considerable discussion but there does not appear to be any correlation between the use of insulin and the occurrence of lesions. However, it has been found in a number of instances, that proper treatment and control of the diabetes with cooperation of the patient has a tendency to limit the occurrence of ocular lesions, especially the retinopathy.

The blood sugar level at any one time bears no definite relationship to the occurrence of ocular lesions. Sudden changes in the blood sugar, however, and marked changes over a period of time may be a factor in the production of ocular changes. Changes in the refraction of the eye which occur rather suddenly are not uncommon in known diabetics. The vision which had been previously corrected to normal may suddenly decrease or smaller changes in the vision over short periods of time may occur which require frequent refraction and change of lenses. Although the cause is not known exactly, this is considered to be due to the effect of the sugar concentration on the refractive index of the crystalline lens. An increase in the blood sugar concentration is said to produce an increase in the myopia, whereas a decrease in blood sugar is accompanied by an increase in hyperopia.

The accommodation of the patient may also be weakened or below normal in the diabetic of long duration and paralysis of the extraocular muscles is not uncommon. The lateral rectus muscle is most commonly involved and, although no exact explanation is available, it is customary to consider this as the result of a toxic condition. The paralysis may persist for a long time but it may improve to some extent with improvement in the general condition.

The most common diabetic changes in the iris occur in the pigment epithelium characterized by edema, swelling and degeneration with the liberation of free pigment. The stroma in some rare instances may also become edematous and atrophic. In cases of long standing, atrophy of the iris can be noted in detail on slit lamp examination. Newly formed blood vessels may also be found on the iris in such cases near the pupillary border. The condition is non-inflammatory and is known as diabetic rubeosis. Iritis in diabetes is not very common.

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However, if it occurs in such a patient as the result of some intercurrent condition, it might be severe.

The presence of lens opacities and cataract in patients with diabetes is, of course, very common. This is true especially of the older patients, many of whom are within the age group in which cataract ordinarily occurs. A great many are also known to have arteriosclerosis.

In children with diabetes, cataract is observed with comparative less frequency. However, O'Brien and Allen,[1] in a study of 260 cases of diabetes in patients under 21 years of age, found 36, or 13.8 per cent, with lens changes. The patients were observed over a period of years and diabetes was considered to be the cause of the lens changes only when the opacities were of the snowflake or subcapsular variety and in which there was definite increase in the opacities. In each case in which diabetic cataracts were found the diabetes had been poorly controlled or uncontrolled for several months or years preceding the development of the lens changes.

The relationship of hyperglycemia to the development of cataract was explained as subjecting the lens to a higher concentration of sugar in the surrounding fluids. This might have an effect over a period of years. The development of cataract in diabetes certainly appears to have a closer relationship to the duration than to the severity of the disease. When the cataract has reached the stage of maturity, operation for removal can be performed just as in any other case, but the diabetic state of the patient should be under control. The danger of complications in these cases is somewhat greater, however, especially from post-operative iritis and iridocyclitis. Moreover, when advanced arteriosclerosis or hypertension is present, there is an added danger from post-operative intraocular hemorrhage.

The most pronounced manifestations of diabetes in the eyes are to be seen in the retina on ophthalmoscopic examination. The optic nerve head is scarcely ever involved in the average case. The margins are usually well outlined and color normal, except in some very late cases in which the color may become waxy pale. The characteristic lesions in the retina consist chiefly of hemorrhages and yellowish white spots which are commonly spoken of as exudates. These spots or patches are found principally at the posterior pole of the fundus and are less prominent in the anterior portion. They appear to be white at first but later assume a glistening or waxy yellow color. Their edges are rather well demarcated and have the appearance of being hard patches in contrast to the whitish cotton-wool exudates with fluffy margins commonly seen in the retinitis of nephritis. The diabetic patches also have a tendency to arrange themselves around the macular region in the form of a circle as seen in circinate retinitis. They are not the result of an inflammatory process, but are considered to be degenerative, with deposits of hyaline and cholesterol in the retina.

The hemorrhages occur in the deeper layers of the retina, usually in association with the patches, and present a picture which is diagnostic of a diabetic retinosis. In the typical case, they are small, round or oval, and are usually sharply outlined. There may be very few in number at first and they might be difficult to observe. On close observation, however, one or two may be seen as petechia near the ends of the arterioles or capillaries. Later they may appear slightly larger and round under the retinal vessels in the deeper layers. In some cases, especially those of longer standing, larger hemorrhages may occur and even pre-retinal hemorrhages may be seen. In a few instances, a proliferating retinitis may occur, which is characterized by fine, thin connective tissue bands in association with newly formed vessels. The new blood vessel formation in these cases of diabetes was described by Klien[2] as the primary formation, the delicate connective tissue formation being secondary, in contradistinction to the formation of connective tissue which precedes new vessel formation and which was considered to be a different type of proliferating retinitis.

The cause of the retinosis in diabetes has received a great deal of attention but as yet it is not generally well understood. It is perhaps agreed that the presence of retinopathy in diabetes does not depend on the severity of the disease, but rather on the prolonged duration of the hyperglycemia, even in mild cases. Elwyn[3] explained the pathogenesis of the exudates as the result of insufficient nutrition and inadequate oxygen supply to the retina with subsequent deposits of hyalin and lipid in those areas affected. The cause of the small, deep hemorrhages, however, was more difficult to explain. Elwyn disregarded the presence of sclerosis of the retinal vessels as a factor. He explained their presence by diapedesis through the capillary walls. Dilatation

with slowing of the blood in the capillaries results in a condition of pre-stasis. The small hemorrhages could be explained by the passage of red blood cells through the soft vessel walls. Although the cause of the pre-static condition in diabetes is not known, Elwyn feels that in some way it is produced by a state of continuous mild hyperglycemia over a period of years. He eliminated the possibility of toxic substances as a cause by the fact that thus far none have been found, and the possibility of a vitamin deficiency is eliminated because no specific deficiency is known to be associated.

In discussing the retinal lesions occurring in diabetes, Friedenwald[4] also recently called attention to what he termed small aneurysmal sacs which were connected with the capillaries. These were often found to be incompletely lined with endothelium and indicated that the leakage of blood occurred first; the endothelial growth occurred later to cover it. This endothelial sac formation surrounding the petechia in the retina was also described previously by Balantine and Lowenstein.[5]

The initial persistence of petechia followed by enclosure from an ongrowth of endothelium suggested that the process developed from a break in the capillary wall, followed by the slow leaking of red corpuscles. The outgrowth of endothelium surrounding the mass of extravasated red cells resulted in the formation of a small saccular aneurysm. The presence of the hard white exudates was also explained as the result of smaller breaks in the capillary walls, through which only plasma without red cells escapes. Friedenwald also confirmed the fact that patients with diabetic hemorrhagic retinitis show increased capillary fragility and that the retinitis is undoubtedly a manifestation of a general capillary abnormality, although its relationship to the metabolic disturbance of a diabetic is still unexplained. He stated that local atherosclerosis in the retina is not responsible for the retinitis and that there is little evidence to support the hypothesis that diabetic retinitis is an atherosclerotic manifestation.

I have under observation at the present time, a female patient, age 23, who has had diabetes for 20 years. Both eyes reveal an extensive diabetic retinopathy with numerous petechia and capillary hemorrhages surrounded by the thin veil-like connective tissue formation described in these cases. On ophthalmoscopic examination the retinal arteries in this patient show, however, none of the signs of sclerosis, but she did show an increased capillary fragility. Notwithstanding the extensive and advanced retinal changes and the long duration of the disease with a fluctuating hyperglycemia, ranging as high as 350 even under treatment, the lenses in each eye are clear. Although the retinal arteries show no marked sclerotic changes, the retinal veins are distended, tortuous, and some were ruptured, with extravasations and a large pre-retinal hemorrhage in the left eye. Bands of proliferating connective tissue could be seen along the course of the vessels and enveloping some of the petechia at the ends of the vessel similar to that described by Klien and later, Friedenwald.

Evidence to support the fact that sclerosis of the vessels is an important factor in the production of the retinal lesions was presented at different times by Agatston,[6] O'Brien and Allen[7] and also Gibson and Smith.[8] Gibson and Smith found the most advanced and most progressive form of the medial type of venous sclerosis in patients with diabetes mellitus. Moreover, it was, to some extent, the duration of the disease and not the age of the patient which determined the presence of phlebosclerosis. It is also felt that retinal phlebosclerosis is becoming more frequent because of the longer life of the diabetic patient today. It usually runs a mild, chronic, progressive course. The blood sugar concentration is not necessarily high. For these reasons it is considered that some change in a metabolic product resulting from the carbohydrate metabolism disturbance, and not the hyperglycemia, is responsible for the vascular changes.

When hypertension, renal disease or both of these conditions are associated with diabetes, the retinal picture is altered and mixed. The retinal arteries may now show distinct evidences of arteriosclerosis and hypertension. Hemorrhages may also be seen here in the superficial layers of the retina. They may be linear or streaked in appearance and of various sizes. With nephritis, there may be found the white, soft, cotton-wool exudates and the star-shaped infiltration around the macula. Here, the optic disc may also show edema of varying degrees and edema may also be found in the retina. While these added conditions serve to present a mixed picture in the retina, the ophthalmoscopic evidences of diabetes may still be recognized. In the latter condition, the size, appearance and location of the retinal hemorrhages, together with the appearance, location and

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arrangement of the retinal exudates, present a picture which is characteristic of diabetes.

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Medical Arts Building.

Floral Eponym (59)

SEQUOIA

SEQUOYAH OR GUESS, GEORGE, 1770-1843

"THINK of the lordly monument of the sequias, named for a half-breed Indian, a modern Cadmus of the Cherokees, language maker, teacher, something of a medicine man, whose name was George Guess." (*Doctors and Gardens*). Guess was born in the Indian town of Taskigi, Tenn. His father was possibly Nathaniel Gist, a trader who abandoned the mother, a woman of mixed Indian blood, before the birth of the child. During childhood the youth seems to have borne only his Indian name. Later he took that of his father, which he understood to be Guess. For some years he was a hunter and fur-trader, but an accident crippled him for life. He then took up the making of silver ornaments. From 1809 to 1821 he worked on a Cherokee alphabet, and in 1822 he visited the Western Cherokees in Arkansas, in order to interest them also in the alphabet. He removed with them to Oklahoma where his alphabet stimulated the printing of books and a newspaper in the Cherokee language. His statue was placed by the State of Oklahoma in statuary hall in the capitol in Washington.

Sequoia is a genus of pinaceous trees consisting of two species. S. gigantea, the big tree of California, is the largest coniferous tree in the world. It is thought to be also the oldest living thing. S. sempervirens, the redwood, has a smaller girth than the big tree but attains as great a height.

STREPTOMYCIN IN ACUTE BRUCELLOSIS— A CASE REPORT*

SIDNEY G. PAGE, JR., M.D.,
MEYER PERCHONOCK, M.D.,
and
JOHN POWELL WILLIAMS, M.D.
Veterans Administration Hospital,
Richmond, Virginia.

The status of streptomycin therapy in the treatment of Brucella abortus infections is unsettled. Chester Keefer has recently stated that chronic infections with Brucella organisms have shown poor response to the use of streptomycin. In his experience, even though the Brucella infections have shown improvement, post-treatment blood cultures have been positive in many instances. Jones, Metzger, Schatz, and Waksman found that streptomycin protected chick embryos against infection with Brucella abortus organisms, while Live, Sperling, and Stubbs found streptomycin in adequate doses to be bacteriostatic in experimental Brucella abortus infections in guinea pigs.

Recently, Keefer *et al* reported inconclusive results in 45 cases of Brucellosis treated with streptomycin.

This case is reported as an instance of proven Brucella abortus infection of ten weeks duration before treatment with streptomycin in which there was an apparent clinical cure without return of signs or symptoms for a period of five months following treatment.

Inasmuch as there is little knowledge at present regarding the efficacy of streptomycin in reducing the relapse rate in Brucellosis, this case report is offered as a case favorably influenced by streptomycin.

J.W.M., a 22 year old white veterinarian, was admitted to the Veterans Administration Hospital, Richmond Virginia, on May 9, 1946. Five to six weeks prior to admission, he noted the onset of headaches, moderate fever with malaise, nausea, and slight constipation. He continued his normal work in the mornings, but extreme malaise and fatique necessitated resting in the afternoon.

About three weeks prior to admission, he noted the onset of daily shaking chills and generalized aching late in the afternoon with temperature elevations to about 103°. In the mornings, however, he felt quite well. During this three week period, he lost about 15 pounds in weight. At this time, an agglutination test was reported positive for Brucellosis in a dilution of 1:6400. About six days prior to admission, the patient received an injection of Brucella anti-serum intramuscularly without any apparent effect in his clinical condition. The patient had recently been engaged in the manual removal of placentas from bovines infected with Bang's disease.

Physical examination on admission was essentially negative except for temperature of 99.4°, the blood pressure was 118/75, pulse 90, respiration 20. There was no evidence of lymphadenopathy, splenomegaly, orchitis, or joint swellings.

Hospital Course and Treatment: The patient had daily afternoon shaking chills for 20 days following admission with the fever frequently spiking to 104°. For the first eight to ten days, the patient felt relatively well in the mornings but at night complained of generalized aching, joint pains, and burning on urination. From the 11th hospital day the patient had 10 days of marked nausea anorexia. and occasional vomiting. He lost an additional 15 pounds in weight during his first 20 days in the hospital. From the 21st to the 27th hospital day, there was a slow downward curve in the temperature peak, chills disappeared, and the patient began to improve subjectively.

Intramuscular streptomycin therapy was begun after Brucella abortus had been isolated from blood culture. The organism was sensitive to 12.5 units per c.c. of streptomycin in vitro. The schedule of streptomycin was as follows: 0.5 grams (500,000 units) every two hours for three doses followed by 0.3 grams every three hours thereafter until a total dosage of 44.1 grams was administered in 19 days. Skin sensitivity test to streptomycin was found to

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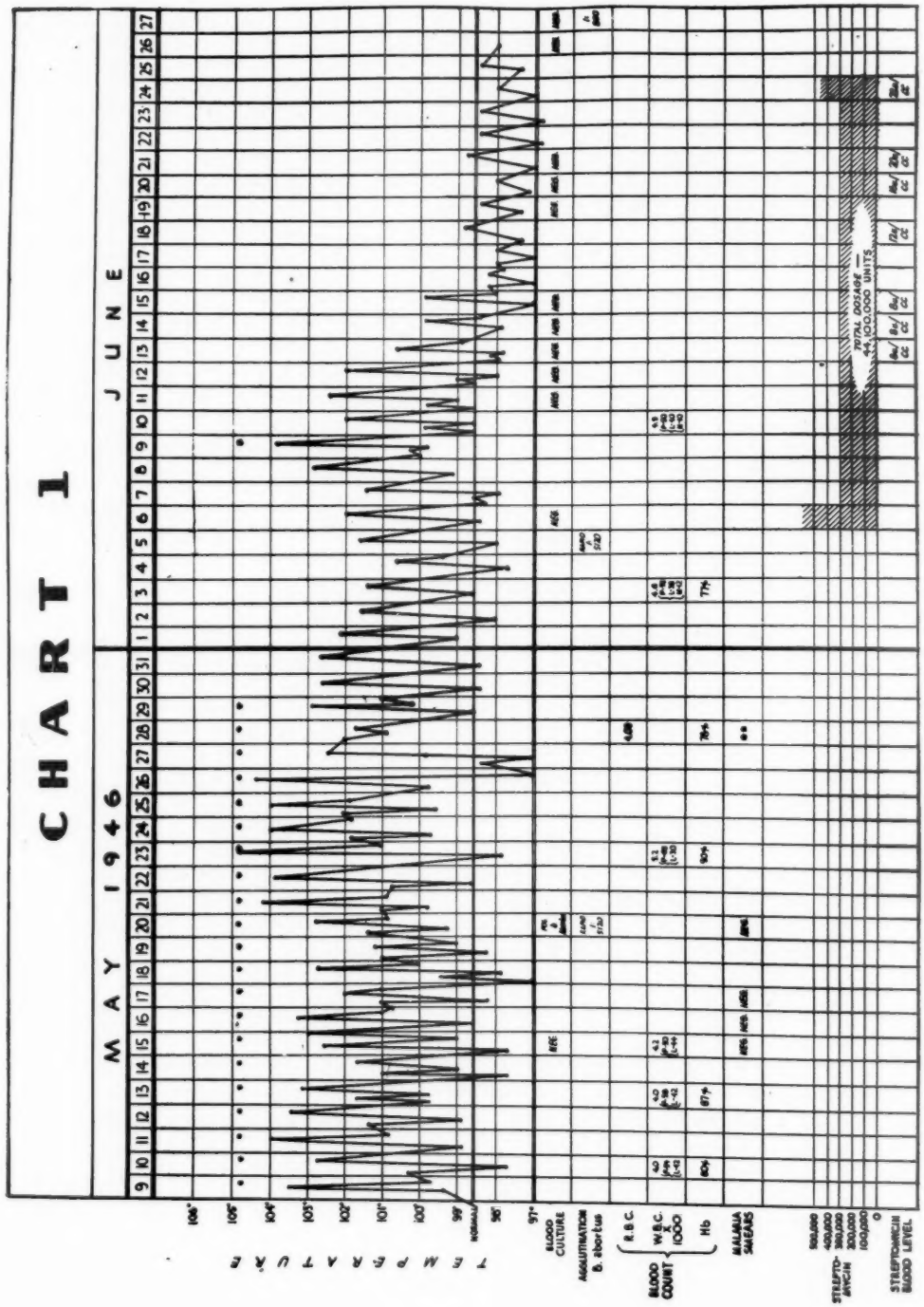
CHART 1
MAY 1946
JUNE
TEMPERATURE
BLOOD CULTURE
AGGLUTINATION B. abortus
BLOOD COUNT
R.B.C.
W.B.C. X 1000
Hb
MALARIA SMEARS
STREPTO-MYCIN
STREPTOMYCIN BLOOD LEVEL
TOTAL DOSAGE 44,100,000 UNITS
Legend:
CHILL
B. Abortus SENSITIVITY 12.5a/cc

be negative and it was then administered according to the following schedule: 0.5 grams streptomycin was dissolved in 1.5 c.c. of normal saline plus 1.0 c.c. of 1% novocaine in saline solution. The addition of novocaine minimized the pain at the injection site.

Streptomycin was begun the 29th hospital day and four days later the fever began to subside, reaching normal on the 11th day of therapy. This was the first afebrile day since the onset of his illness ten weeks previously. He continued to improve and left the hospital on his 50th hospital day. A subsequent report five months later revealed that the patient had returned to work and had regained his normal weight without return of signs or symptoms of the disease.

Laboratory: R.B.C. was 4,100,000 with 80% to 90% hemoglobin throughout hospital stay; W.B.C. ranged from 4,000 to 5,200 with about 54% neutrophiles and 42% lymphocytes; Kahn was negative; repeated urinalysis before, during, and after streptomycin therapy were negative. Serum agglutinations for Brucella abortus were positive 1:6400 prior to hospital admission, twice positive 1:5120 in the hospital, and one week prior to and on day of discharge from hospital the titers were 1:800. Six weeks following discharge, the titer was still 1:800. Stool examinations and malaria smears were negative. Blood culture was positive for Brucella abortus on May 20th and was repeatedly negative after beginning streptomycin therapy. Streptomycin blood levels ranged from eight units per c.c. on seventh day of therapy to 22 units on 18th day of therapy.

Conclusions: (1) A proven case of acute Brucellosis caused by Brucella abortus treated successfully with streptomycin is reported.

(2) This patient has had no relapse or return of signs and symptoms for five months following streptomycin therapy.

Since submitting this paper for publication, five additional cases of brucellosis have been treated with streptomycin for approximately thirty days with favorable results.

National Blood Program.

The first unit of a national network of Red Cross blood centers was opened in Rochester on January twelfth.

In response to the growing need for blood in medical practice the American Red Cross has launched a new National Blood Program designed to furnish whole blood and, in time, a variety of blood derivatives required in disease prevention and the treatment of the ill and injured. The new program is long range in its aspects and it is anticipated that from three to five years will be required to bring it to full development. The program is an outgrowth of the cooperative wartime program of the Red Cross, the armed forces and the National Research Council. It has been launched after consultation with leaders in the medical profession, hospital associations and public health officials.

Plans call for the eventual establishment of 140 metropolitan centers throughout the country, with 250 secondary centers in smaller communities and several hundred mobile units to serve rural and suburban areas.

The entire cost of collecting, processing and distributing the blood will be borne by the Red Cross. Blood will be collected from voluntary donors and given without charge to patients, the only cost to the patient being the usual medical or hospital fee in connection with the administration of blood.

The opening of the Rochester Regional Center will be followed by the immediate establishment of centers in Wichita, Kans., Atlanta, Ga., Louisville, Ky., Washington, D. C. and Stockton, Calif. It is expected that by the end of this year 50 regional centers will be in operation.

TREATMENT OF BACTERIAL PNEUMONIAS*

HARRY WALKER, M. D.,
Richmond, Virginia.

The first step in the ideal treatment of pneumonia would be to establish the bacterial cause of the disease, and, whenever possible, this, of course, should be done. However, this is not always practical for several reasons. One reason is that you can't always collect a specimen; the second is that facilities are not always available to identify the organism; and, then, another reason is that unfortunately time is lost in a lot of instances which may be dangerous to the patient. For those reasons, the old classification of pneumonia on an anatomical basis—that is, lobar and broncho-pneumonia—is still of some practical value, since lobar pneumonia is due in 95 per cent of the cases of either the pneumococcus, the streptococcus, or the staphylococcus, while broncho-pneumonia, on the other hand, is more apt to be due to mixed infections.

Now as to the treatment of lobar pneumonia, we have two drugs, which are invaluable in the management of this disease. These two drugs, of course, are penicillin and derivatives of sulfanilamide. The most effective sulfanilamide derivative is thought to be sulfadiazine. Because of its ease of administration, its general effectiveness, its relatively low toxicity, it is the drug of choice in this field. At first the initial dose should be four grams, or you can use two grams every two hours for two doses. In other words, you don't have to use four grams as an initial dose, you can divide it up every two hours. Either way that you begin treatment, it should be followed by one gram every four hours around the clock. That refers to oral administration.

The drug can also be given intravenously if a sodium salt is used. There are two methods which can be used when the intravenous method is used. One is to give five grams of sodium sulfadiazine in 100 c.c. of water intravenously every twenty-four hours. Another method is to give two and one-half grams in 50 c.c. of distilled water every twelve hours by the intravenous route. These doses keep the blood level at from ten to twelve mg. per cent on the average. In either way that it is given, (oral or i.v.) the drug should be continued from forty-eight to seventy-two hours after the temperature comes to normal.

Sulfadiazine, however, is not without danger. In fact, reactions occur in about 10 per cent of all cases. The two most important reactions, of course, are those related to the kidney, in which you have hematuria due to the formation of crystals. It has been said that sodium bicarbonate, two grams, given three to four times a day, tend to prevent this particular complication. Probably a more important way of preventing it is to see that the urinary output exceeds fifteen hundred c.c. every twenty-four hours; this I believe is much more important than sodium bicarbonate.

The other reactions, such as rashes and urticaria, are sometimes benefited by calcium gluconate by mouth, or by calcium chloride intravenously. As for blood reactions, these usually do not occur until the drug has been given for a period of five days, and, when they do occur, the best method of managing these patients is to stop the drug. Because of these toxic reactions and because of the fact that the price of penicillin has declined, this particular drug is becoming more generally used in the treatment of pneumonia. It certainly should be used in lobar pneumonia when there are toxic reactions of any kind from the sulfadiazine. Furthermore, it should be used when there is any extension of the pneumonic process. It should also be used when there is any evidence of pleural infection, and any evidence of foci of infection elsewhere in the body, due to the organism which is responsible for the pneumonia, and, of course, it should be used in all cases which have renal disease.

The way this drug is administered is 30,000 units as an initial dose, followed by 20,000 units every three hours, either intramuscularly, or intravenously, or it can be given in 200,000 or 300,000 unit doses in beeswax and peanut oil daily or it can be given by mouth, a way in which I have had no experience. It is said, however, that only about one-fifth is utilized by the body if taken by mouth; therefore, the dosage when taken orally would be approximately 200,000 units for the first dose and 100,000 thereafter every three hours.

*Read at the Symposium on Therapy, February 18-19, 1947, Medical College of Virginia, Richmond, Virginia.

Now, one point about the duration of the continuation of the drug. If you are dealing with a streptococcic pneumonia, it is thought best to continue this drug for one week to ten days after the temperature has returned to normal. In fact, some authorities advocate the continuance of this drug for a period of two weeks in streptococcic pneumonia after the temperature returns to normal. With these drugs (sulfa derivative and penicillin) much has been accomplished in the treatment of lobar pneumonia. For example, hospitalization has been cut about one-third. Nursing care has been reduced at least one-half in a majority of patients, and the expense of oxygen and other adjunctive therapy has also been decreased. In addition, the mortality rate has been reduced from approximately 25 per cent to 8 per cent. When we analyze these 8 per cent who die, we find that possibly there is some way in which this figure can be further reduced. However, it is not as much as you would think at first hand. The reason it cannot be reduced much further is, first of all, one class of failures are those pneumonia patients who have some other disease and the pneumonia is merely an incidental finding, or an incidental cause of death. The second reason is that everybody doesn't seek medical advice at the beginning of pneumonia, and, for that reason, therapy is often delayed too long. The third group are those who have some chronic disease, which is compatible with life over a period of many years, who apparently do not do well when treated for pneumonia. These patients, if they are recognized, and if adjunctive therapies such as oxygen, fluids, transfusions, the use of digitalis in cardiac complications, etc., are promptly and adequately carried out, such measures would reduce the mortality rate of this group to a considerable degree. It is the last group in which the further reduction in mortality is more likely to take place.

Broncho-pneumonia, as you know, is a secondary rather than a primary disease. It is frequently due to the streptococcus, the staphylococcus, the micrococcus catarrhalis, and the streptococcus viridans. It so happens that all these organisms respond well to penicillin. Therefore, when penicillin is given, the scale of dosage and schedule used in lobar pneumonia should be used in cases of broncho-pneumonia.

As for the other types of bacterial pneumonias, such as Friedlander's bacillus, it has been shown that penicillin is of no value. It also has been shown that sulfadiazine and other sulfa preparations are of questionable value. Certainly they are not the ideal remedies, or specific for the management of this disease. Recently much has been written about streptomycin. The recommended dose is one gram in twenty-four hours. It is divided into eight equal parts, or .125 grams per dose, and is given intramuscularly over a period from seven to twenty-one days. There haven't been enough cases reported to say definitely how valuable this drug is. However, present information suggests this is probably the best remedy that we have available.

As for tularemic pneumonia: This disease can occur in any type of tularemia, whether oculoglandular, ulceroglandular, glandular, or typhoid variety. It is the latter type in which the diagnosis is usually overlooked. Therefore, one of the first points in the treatment of this disease is to remember that tularemia can cause lobar pneumonia, and any similar condition that does not respond favorably within forty-eight to seventy-two hours to other methods of treatment, this diagnosis should certainly be considered. It is particularly important to make the correct diagnosis in these cases, because it is this disease in which streptomycin probably has its greatest usefulness. The mortality rate from tularemic pneumonia before this drug was discovered was approximately 85 per cent. Now there have been numbers of cases recorded which would indicate that the mortality rate is much lower. Here, again, the dose is one gram in twenty-four hours, divided into .125 grams every three hours, and in severe cases, probably two grams a day. The treatment should extend over a period of at least seven days, and even fourteen days in the more severe cases.

As for aspiration pneumonia: This is a little bit different disease from any of the rest in that you have a necrotic process in conjunction with the bacterial process. Furthermore, you have a mixed infection and the organisms which are usually found do not respond to any known specific remedy.

Fortunately, preventive measures are fairly successful.

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HEALTH PROBLEMS OF NEGROES IN RICHMOND

ZENOBIA G. GILPIN, M.D.,
Richmond, Virginia.

The average Negro in America dies nine or ten years earlier than the average white person. This statement summarizes not only a great body of facts about various problems of the health of Negroes, but also a great body of assumptions and theories pertaining to race and to cultural and economic factors and their relationships to health. In the next few minutes the effort will be made to suggest some major problems related to the health of Negroes and to discuss briefly the theoretical and factual considerations relevant to those problems.

First is the problem of the so-called "Negro diseases." A basic principle of health is that the organisms which cause diseases are not respecters of persons or races, and yet there are some diseases whose incidence among Negroes is higher than among whites. The incidence of tuberculosis is about three times as high among Negroes as among whites. The incidence of syphilis among Negroes may even be as high as ten times that of whites. The biologists contend that where one race is relatively resistant to a particular disease the probability is that the race has had a long history of exposure to the disease and that through natural selection a certain racial immunity to the disease has tended to develop. Only recently (less than 500 years) have Negroes been exposed to syphilis and tuberculosis. On the other hand, Negroes have had a long history of exposure to certain tropical fevers as malaria and yellow fever. The result, according to the theory of natural selection, is that Negroes have developed a strain more resistant to tropical fevers than whites have had opportunity to develop, and, conversely, whites have developed a certain resistance to tuberculosis and syphilis which Negroes have not had time to develop.

The differential incidence of such diseases may be explained, however, without reference to the principle of natural selection. It may be explained in terms of economic and cultural factors. For example, it seems to be significant that the incidence of syphilis among Negroes whose family income is from three to four thousand dollars per year is exactly the same as the incidence among whites with the same income.

Negroes comprise approximately one-third of Richmond's population. However, the absence of racial immunity due to a comparatively brief history of contact with these diseases, coupled with the fact that a high percentage of the Negro populace falls within the low income bracket, makes this problem of far greater magnitude and acuteness than mere statistical comparisons would indicate. Cultural poverty in all its phases exists in greater measure and sharper degree among the under-privileged of all races. Negroes are no exception. The lack of adequate health information from the standpoint of the values of preventive and curative measures is appallingly prevalent among Negroes because of an impoverished socio-economic background. Moreover, the Negro citizen with his low income and substandard living conditions is frequently compelled to remain active longer in his work when sickness does come because of his desperate attempts to make ends meet and to keep soul and body together. Little does he realize that the tendency to delay seeking health services makes his disease a more difficult one to treat than would otherwise be true or that frequently to delay treatment is actually poor economics.

In summary, a high degree of vulnerability, poor economic conditions, and a lack of proper health education at all levels combine as contributing factors to the higher incidence and difference in virulence of some diseases among Negroes.

In an article in last Saturday's *News Leader*, Surgeon-General Parran of the U. S. Public Health Service struck an alarming note in his outlook on the health situation for the nation as a whole. He pointed out that there is little hope for general health improvement because the number of physicians and trained health workers is so small and the increase in numbers is not commensurate with the rising needs. If such is the case for the nation as a whole, how much more intense must be the Richmond Negro's problem? Here we have only 25 Negro physicians serving a Negro population of

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more than 60,000. Although the white population of the city is only two or two and one-half times as large as the Negro population there are fifteen or sixteen times as many white physicians as Negro physicians. A second problem of Negro health, therefore, is that the number of Negro physicians is inadequate. What is the outlook? There is no institution in Virginia where Negro physicians are trained. Our own state institutions which train physicians do not admit Negroes. Negroes are finding it increasingly difficult to complete their medical studies in the medical schools of the North and West. Some, like Harvard, Chicago, and Michigan, limit the number of Negro students; others restrict them to the first two years of medical study—the pre-clinical years; and still others refuse to admit them at all. Illustrating the latter group is Northwestern, notwithstanding the presence of Negro physicians on the staff of the Medical school. The result is that more and more Negroes are being limited to Howard University in Washington, D. C., and Meharry Medical College in Nashville, Tennessee, for their professional training. Although both institutions are well equipped and becoming better all the time, they cannot provide enough physicians to meet the needs of the Negro group in America.

Closely related to the problem of professional training is the problem of post-graduate instruction and opportunities to develop specialties or to improve general practice through continuing study and practice in modern hospitals and clinics. The hospitals of the Medical College of Virginia are teaching hospitals, limiting their practice to their staff members. Although Negroes have distinguished themselves as teachers of medicine and surgery at Harvard, Northwestern, the University, and other places (for knowledge of the healing arts is, like pathogenic organisms, no respecters of persons or races) the Medical College of Virginia has no Negroes on the teaching staff and thus no Negroes practice in the Saint Philip Hospital, a hospital for Negro patients exclusively. Moreover, no Negroes are on the staffs of Piedmont Tuberculosis Sanitarium or the Central State Mental Hospital, both institutions serving Negro patients. Partially as a War Memorial but more especially as an effort to meet a community need, Richmond is about to undertake the erection of a large, modern, general hospital. There are those of us who are anxious lest this new hospital follow the old patterns and somehow fail to provide sorely needed opportunities for the development of the local Negro physician as well as adequate care for the Negro patient.

Not only is the problem of hospitalization important because of the need of physicians for continuing study, but because the hospital needs of Negroes are acute. It is true that recently there have been unoccupied beds for tubercular patients at Pine Camp but a reasonable expectation from the current case finding program is that more active tubercular cases will be found from the mere sampling of a segment of the old Jackson Ward population than Pine Camp can accomodate. This implies a problem separate and distinct in itself—that of a comprehensive case finding program large enough in scope and intense and intelligent enough in its administration to uncover the thousands of cases menacing the health and welfare of us all, but now going unnoticed because of inadequacies of facilities and personnel. Again let me say that statistical comparison alone is not an adequate basis for approaching the solution to a health problem. In attacking any evil or menace, the logical basis, it seems to me, is to concentrate one's forces most intensely where the need is apparently greatest. To some, equal facilities and services for Negroes and whites would be ideal. To me, it appears that equal facilities and services are not enough since proportionately a far greater need exists among the Negro segment of the population.

To return to the problem of hospitalization, the only provision for convalescent rheumatic heart disease children in the city is the provision of five beds at the City Home, not a hospital at all according to modern conceptions. A few years ago there was maintained at the Richmond Community Hospital a unit for such patients accommodating from twelve to fifteen children. This service is no longer offered. What provision is currently being made for these cases (to say nothing of additional ones being uncovered as a result of increasingly improved techniques in diagnosis)? The magazine section of our morning paper carried a two page discussion of such cases on Sunday, March 24, pointing with pride to the fact that Richmond would soon be the center of attraction in the eyes of the medical world because of intense research and care of heart cases.

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The problem of the Negro here as in all cases is to be assured inclusion in this program in a measure proportionate not only to population percentages but proportionate also to the degree of incidence and intensity.

Similar to the situation for tuberculosis and rheumatic fever is that for venereal diseases. Without elaborating on the need for a comprehensive case finding program, suffice it to say that the facilities of the Rapid Treatment Center for Venereal Disease would be totally inadequate if such a program were in operation.

The problem of the illegitimate mother is one which is also especially important. More often than not, the illegitimate mother is salvageable. More often than not she is a girl who has made a mistake rather than a prostitute or a person who is definitely antisocial. There is no place in the city, or the state for that matter, where such mothers can go under circumstances designed to restore them to a place of usefulness and good citizenship. All are sent to the City Home or exposed to the cross currents of public hostility by being forced to remain in their own homes.

Disregarding for the moment the gross inadequacy of facilities and services available to Negroes, I am impelled to point out the difficulty Negroes experience in seeking to use those we already have. The clinics of the city and those of the Medical College are splendid when their services can be secured. Negroes, however, and especially those of the professional and semi-professional group are becoming increasingly discouraged and annoyed by the red tape connected with securing these services. Services are not adequate when sick people, regardless of race, are compelled at times to wait hours, sometimes half a day, before being attended. Recently I waited at the Saint Philip Hospital from 8:30 until 11:00 P. M. with a desperately ill child before I could get her admitted for treatment for bronchial pneumonia.

Another problem related to the health of Negroes arises out of the unwillingness of public health authorities to employ Negro physicians as public health workers. Mention has already been made of the absence of Negro physicians at Burkeville and Central State. In addition, no Negro physician is employed by the Richmond Public Schools, by the Richmond Health Department, or by the Virginia State Health Department. The authorities are to be commended for the employment of a qualified Negro physician during recent years who served on the staff at Pine Camp. Whether this one was adequate in number is a matter for conjecture. At any rate, to employ him was a step in the right direction. By this I mean that care should always be taken to employ Negro personnel who are required to meet the same standards as prospective white employees. The practice of employing someone without concern as to his preparation and capabilities for the job to be done is not to be condoned simply because the person happens to be a Negro. It is true in some instances that even the partly trained Negro has the distinct advantage of a higher degree of rapport in approaching his client than the trained white worker because of the mental conflicts and reservation of the client. There can never be a fair test of the value of a Negro worker, however, until one specifically trained and prepared is given the opportunity to render his services. Too often in Richmond's past dealings with such problems a disregard for the qualifications of prospective Negro workers has been demonstrated. Our Department of Public Safety set a good example of careful selection and thorough training of well qualified Negroes when it employed the first four Negro policemen. Standards with reference to high school and college training were set even higher than for whites seeking to join the force. The job they have done in their first year is one of which all Richmond is proud, thanks to their exemplary performance and to an alert and fair-minded local press. Such procedures and principles would apply with equal force to the employment and training of health workers.

One of the wisest Americans of his generation once said that you can't keep a man in a ditch without staying there with him. History has afforded abundant evidence of the general truth of this commonplace parable of Booker-T. Washington. The Poll Tax disfranchises more white people in the South than Negroes. The low wages paid Negroes are an economic burden to the Southern regions. Remembering that this is a discussion of health problems, I hasten to say that it is impossible for the general health of whites to be safeguarded if Negroes have acute health problems. The health of a white home is in jeopardy when the cook or maid comes into close and intimate contact with the mem-

XUM

bers of that home during the day time but spends her nights in a home infested with the organisms causing tuberculosis, syphilis, and many other diseases.

No attempt has been made here to deal with the comprehensive and important problem of preventive measures in connection with the health of our citizenry. Only brief mention has been made of the pressing need of wide and modern health education. The important problem of housing and general environment has only been touched. Recreational facilities, being purely commercial, are either totally absent or totally unconcerned with the health of the clientele. Any attempt to cover these in such a brief discussion would be an injustice to the scope and importance of the problems. It is my hope that the discussion has served to give an over-view of the problem as seen through the eyes of one who has had to deal for a while with the prevention, care, and cure of some of the ills of this large segment of Richmond's own people.

201 East Clay Street.

Coronary Artery Disease in Diabetics.

Persons suffering from diabetes are twice as likely to have coronary artery occlusions as are nondiabetic men and eight times as likely as are nondiabetic women, according to an article in the current *Archives of Internal Medicine*, published by the American Medical Association.

The writers are Samuel Stearns, M.D., assistant in medicine at Tufts College Medical School and associate in medicine at Beth Israel Hospital, Boston; Monroe J. Schlesinger, M.D., assistant professor of pathology at Harvard Medical School and pathologist at Beth Israel Hospital, and Abraham Rudy, M.D., late head of the Diabetic Clinic of the Medical Service of the Beth Israel Hospital.

Employing an improved technic in a postmortem study of the hearts of 50 unselected diabetic patients at Beth Israel, the three doctors found some arteriosclerosis in all of them and "functionally significant" coronary artery disease in a larger number than would be expected from previous studies: 37, or 74 per cent. This last figure was in contrast to 37 per cent in 400 consecutive nondiabetic patients of approximately the same average age.

A coronary artery occlusion is said to be present when a clot has formed in a branch of the coronary arteries which supply blood to the heart muscle. With the circulation to this particular area of the heart obstructed by the clot, death of some of the heart's tissue occurs. Such occlusions, either fresh or old, were found in 32 (64 per cent) of the 50 diabetic hearts and as frequently in women as in men; similar occlusions were found in only 23 per cent of the 400 controls occurring in 31 per cent of the nondiabetic men and in but eight per cent of the nondiabetic women.

The severity of the coronary arteriosclerosis was found to be definitely related to the duration but not to the severity of the diabetes.

Schering Initiates Food Relief Drive.

Employees of Schering Corporation of Bloomfield and Union, New Jersey, recently completed a company-wide food relief drive for aid to the stricken people of Europe. The campaign received unanimous support, the employees responding with enthusiasm and generosity in donating over 5,000 cans of assorted meats and evaporated milk. The foodstuffs were transferred to the American Council of Voluntary Relief Agencies for distribution. Schering assumes total cost of shipment abroad.

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MYASTHENIA GRAVIS—
Two Case Reports

H. CLARKSON MEREDITH, JR., M.D.,*
Clifton Forge, Virginia.

Although myasthenia gravis is an unusual disease, the diagnosis can often be easily made since the patient with it presents a rather typical picture. Much has been written on the subject, so only a few salient features will be mentioned here.

The underlying disturbance of this disease is not known, but from the successful use of prostigmine by Mary Walker, we have a hint.[12] The physiologic disturbance seems to be located in the myoneural junction. At this point it appears there is a deficiency of acetylcholine production rather than an excess of cholinesterase since all reports of serum cholinesterase in patients with myasthenia gravis have been reported as normal. An explanation of why prostigmine is so dramatic in the treatment of these patients is that it inactivates cholinesterase, causing an increase in the amount of effective acetylcholine at the spinal motor nerve endings.[5] With increased amounts of acetycholine present longer at the myoneural junction a stronger more sustained stimulus can reach the muscle, giving ultimately more activity and strength.

In brief, the outstanding features of myasthenia are the rapid fatigability of the muscles on activity and the quick restitution of function on rest. A general weakness, or more specific symptoms such as ptosis, diplopia, dysarthria, dysphagia are frequently the presenting complaints. Typically, the myasthenia patient is one who, while talking to you, will be seen supporting his jaw movements with his hand. The extreme is the patient lying in bed unable to sit up and having difficulty with respiration because of fatigue of diaphragmatic muscles.

The diagnosis of myasthenia gravis is based on the clinical picture given above plus the therapeutic results of a test dose of prostigmine. Prostigmine methyl sulfate 1.5 mgm. is given hypodermically along with atropine sulfate 0.6 mgm. (1/100 grain) and a dramatic recovery of strength will result within 20 minutes.[5,10] Also, the fluoroscopic findings of a swallow of barium before and after prostigmine will be striking. Before, there will be barium remaining in the pharynx and pyriform sinuses and, afterwards, there will be none. This will serve to differentiate it from bulbar palsy.[10]

The patient with myasthenia gravis can be controlled on prostigmine bromide by mouth in amounts anywhere from 15 mgm. given 2 to 3 times a day to a total of 180 mgm. in divided doses in 24 hours. Usually 15-30 mgm. every 3 to 4 hours is sufficient. Along with this is given atropine sulphate 0.45 mgm. to 0.6 mgm. (1/150 to 1/100 gr.) with each dose to control the muscarine effects of prostigmine. Ephedrine sulfate is sometimes used alone or in conjunction with prostigmine to supplement its effect. It is only 10 per cent as effective as prostigmine.[11] For emergencies, every patient should carry prostigmine methyl sulfate to be given hypodermically by a physician along with a note giving diagnosis and instructions. Another form of therapy that has shown fairly good results in the hands of Blalock[2,3] is the surgical removal of the thymus gland which has been found to be enlarged in many cases. However, this requires special skill, for the operative mortality is high.

CASE REPORTS

The following two cases have been seen recently in this hospital and are typical of myasthenia gravis.

Case 1.—J. S. A., a 44 year old railroad conductor, came in with the chief complaint of weakness of the muscles of his arms, legs, and jaws.

He was in essentially good health until four months before his admission to this hospital when he began to notice that his jaw muscles would become easily tired while chewing. Frequently he would have to stop and give his jaws a rest. Soon after this he became aware of a weakness and easy fatigability of the muscles of his neck, so that after a short time he would have a little difficulty holding up his head. His arms, legs, and back became similarly involved to a greater or lesser degree. His condition gradually progressed to a point where at the time of his admission he would have to use his hand to support the motion of his jaws while talking and he was having difficulty with swallowing.

*Resident, Department of Internal Medicine, Chesapeake and Ohio Hospital, Clifton Forge, Virginia.
Now Assistant Resident in Medicine at the University of Virginia Hospital, Charlottesville.

Previous to his admission he was seen in another hospital† where he was studied and the diagnosis made. There he was given a test dose of prostigmine with dramatic recovery of strength. He was also given curare, which caused collapse, but was immediately reversed with prostigmine. He was finally put on a maintenance dose of prostigmine bromide by mouth of 37½ mgm. every three hours and sent here for further observation.

He was taken off prostigmine before he was examined. In general, all his musculature became rapidly exhausted with activity and recovered to its original state if given an adequate rest period. This was particularly so of his mandibular muscles. In answering questions he was observed to be supporting his jaw with his hand. If this was not done, in a short time his mouth would remain open. Other than an internal strabismus without diplopia, which had been present since childhood, the rest of his physical examination was negative.

Laboratory studies were all within normal limits. The hemoglobin was 88 per cent (13.0 grams), red blood count 4,350,000, white count 8,500 with a normal differential, and blood serology negative. An x-ray of his chest showed no enlarged thymus or other abnormalities.

While in the hospital he was put to several tests before and after prostigmine. Only two will be mentioned as all of them showed essentially the same results. For one, he was assisted up a flight of stairs until he collapsed. He was then immediately given 1.5 mgm. of prostigmine hypodermically and in 5 to 10 minutes he recovered dramatically to get up and walk back down the stairs to his room without assistance. In another, he was tried to see how many times he could close his mandible against a constant amount of light resistance. He was able to do this four times well and four times weakly before prostigmine, but almost indefinitely afterwards. In all studies the restoration of his strength was dramatic. The diagnosis of myasthenia gravis was confirmed and he was discharged well controlled on prostigmine bromide 37½ mgm. and atropine sulfate 0.45 mgm. (1/150 gr.) every 3½ hours while awake.

Case 2.—S. C., a 42 year old negro laborer, came in with the complaints of diplopia and muscular weakness.

About three months before admission the patient first noticed a progressively increasing diplopia. Along with this he began to have drooping of his upper lids and in order to see well he would have to hold his head back. One month after he became aware of his visual difficulties he began to have easy fatigue of the muscles of his jaw and face while talking and chewing. Soon he found himself supporting and assisting his mouth actions with one of his hands. About this time he began to have difficulties with swallowing and in a short time he noticed that after a few bites he would be unable to swallow and food would go up his nose. About one month before admission he became aware of all his muscles becoming weak so that he was scarcely able to do anything after a little activity. Some groups of muscles were more severely affected than others. However, with an adequate rest period he would regain some of his strength. Previous to his admission a lumbar puncture was done at another hospital and spinal fluid was found to be normal. While there all of his teeth were extracted in an effort to help him.

On examination, a middle aged negro male was found lying in bed unable to lift his head off the pillow or to sit up directly. By turning on his side, getting his foot fixed under the edge of the bed, and using his arms he could manage to get himself up. All the musculature of his body would become rapidly weakened to a greater or lesser degree when subjected to activity. An external strabismus, ptosis, and diplopia were present. While talking his mouth would drop open and he would have to use his hand to close it. He was unable to close his mouth against a very weak pressure on his mandible. The deep reflexes were active but weak. The blood pressure was 138/90 and examination of the heart, chest, and abdomen was normal.

Laboratory studies were all normal: hemoglobin 88 per cent (13.0 grams), white blood count 9,050, Kahn negative, and urine normal. An x-ray of his chest did not show any evidence of thymic enlargement. X-rays of his gums and jaws showed several abscessed root fragments.

He was given a test dose of prostigmine while still in bed and in 10 minutes the improvement was dramatic. He was able to sit up, talk well, and walk without assistance. After the effects of the test dose had worn off, he was tried in other activities

†Medical Service, Dr. Joseph B. Webb, Chesapeake and Ohio Hospital, Huntington, W. Va.

before and after prostigmine. He was found to be unable to step up on a chair even with assistance one time before, but after an injection of the drug he was able to do this several times. In other performances the results were observed to be essentially the same and the improvement was always dramatic. A diagnosis of myasthenia gravis was made and the patient has been well controlled on 30 mgm. of prostigmine bromide and 0.45 mgm. (1/150 gr.) of atropine sulfate orally every two hours during the day and one dose at midnight. In addition to this he was given 45 mgm. (¾ gr.) of ephedrine sulfate four times a day to supplement the effect of prostigmine. When he was last seen he could eat and talk without difficulty and walk fairly well.

SUMMARY

A very brief discussion of myasthenia gravis and its treatment has been presented along with two case reports showing the ease with which the diagnosis may be made by keeping a high index of suspicion and giving a therapeutic trial with prostigmine. Controlling a case of myasthenia gravis can be very gratifying, for the patient may be given many months or years of usefulness when he would otherwise be completely incapacitated and meet with an early end.

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Marriage and Divorce Statistics.

Six times as many marriages took place in the United States in 1946 as in 1867, and 60 times as many divorces occurred in 1946 as in 1867, according to figures covering the 80-year period contained in a report released today by the National Office of Vital Statistics, Public Health Service, Federal Security Agency.

According to provisional figures in the report, both marriages and divorces reached record highs in 1946. There were 2,285,539 marriages and 613,000 divorces in the year just passed, compared with an estimated 357,000 marriages and 9,937 divorces in 1867, and 709,000 marriages and 55,751 divorces in 1900. The revised figures for 1945 are 1,603,139 marriages and 494,000 divorces.

Marriages increased almost twice as rapidly as did divorces in 1946 over 1945. There were 682,400 more marriages in 1946 than in 1945, an increase of 42.6 per cent; while divorces granted rose 119,000, or 24.1 per cent, in the same period.

MANAGEMENT OF THYROTOXICOSIS*

ELAM C. TOONE, M. D.,
Richmond, Virginia.

In discussing the treatment of thyrotoxicosis, it is unwise to limit the discussion to any single technique because so many new drugs have entered the field of therapy.

The first drug utilized that had any real value in the treatment of thyrotoxicosis was iodine. In 1896, Baumann first found iodine in thyroid tissue; later this finding was confirmed by Kendall who found iodine in thyroxine, which he isolated from the gland. In 1921, Plummer advocated the use of iodine in the treatment of thyrotoxicosis as a preoperative measure. This was a very distinct contribution to the therapy of thyrotoxicosis and had the advantages of producing a temporary control of the thyrotoxic state and of permitting operative procedures under less difficult circumstances. It further had the advantage of being simple, quick and relatively inexpensive. It shortly became apparent, however, that not all patients responded properly to iodine therapy and that the control of the thyrotoxic state was a temporary one at the best. This latter condition is due to the fact that the administration of iodine causes the blood iodine level to increase, and with this increase in the blood level more thyroid hormone is formed which is then stored within the gland. After a period, however, this storage of the thyroid hormone reaches such a level that it "breaks over" into the blood stream and the thyrotoxic state returns. Even with these limitations, iodine was a valuable agent in the treatment of thyrotoxicosis, but it still left a great deal to be wanted as a completely satisfactory therapeutic agent.

The next stage was the development of certain goitrogenic drugs. It had been found over a number of years that many preparations had the ability to influence thyroid metabolism and among these were such drugs as the cyanates, the cyanides, the various sulpha preparations and thiourea. These as a general rule had the property of slowing down the activity of the thyroid gland and producing a tendency toward hypothyroidism or myxedema. For various reasons these drugs proved unsatisfactory in a long term usage, due in some instances to their toxic effect and in some instances to their failure to control adequately the activity of the thyroid gland. It was during the study of these drugs that thiouracil was found.

Thiouracil is a preparation consisting of a thiourea base to which is combined an aniline compound. This drug has been found to be very effective in controlling thyrotoxicosis by the prevention of the formation of the thyroid hormone, and in combination with iodine, it has been found to be an excellent drug in the pre-operative preparation of thyrotoxic patients. Its great disadvantage, however, is that it has a number of very serious toxic effects, and, roughly 14 per cent of the patients under treatment with thiouracil react in one toxic form or another. The most serious toxic reaction is the development of agranulocytosis, which occurs in 1.8 per cent of the patients and there is a general mortality rate of .5 per cent. This is in keeping with the general mortality rate of the operative treatment of thyrotoxicosis.

When used in the preoperative preparation, the drug is given in the dosage of 2 gm. three times a day until the metabolic rate is normal or approaching normal and then the patient is given an iodine preparation such as Lugol's solution in doses of 5 to 10 drops three times a day for 10 days prior to operation. When used in the continuous medical management of thyrotoxicosis, the patient is placed on thiouracil in amounts of .2 gm. three times a day and this dose is continued until the basal metabolic rate approximates normal and the general features of the thyrotoxicosis are under control. The dose is then reduced to what may be found a satisfactory maintenance level, .1 to .2 gm. two or three times a day. In both instances the drug has proven to be very satisfactory. One other point which should be mentioned is that at first when thiouracil was used alone in the preoperative preparation of thyrotoxic patients, it was found that the gland became so enlarged and vascular that the operative technique was difficult. The use of iodine immediately before surgery produced satisfactory results in reducing the size and vascularity of the gland and consequently re-

*Read at the Symposium on Therapy, February 18-19, 1947, Medical College of Virginia, Richmond, Virginia.

duced the technical difficulties previously encountered.

Propylthiouracil as far as its effect on the thyrotoxic case shows the same general effect as thiouracil. Probably it acts less rapidly, but nevertheless in the same way and as effectively. The main difference is that this drug has been found to be relatively non-toxic and as yet there have been no outstanding features of intoxication as a complication of its use. In the original evaluation of this drug one of the factors that may have influenced the feeling that it is not so effective as thiouracil was that the initial amounts used were quite small, beginning at 75 to 100 mgm. a day. This dosage has gradually been increased, and, at the present time, the recommended amount is 300 mgm. or .3 gm. a day, given in equally divided doses. By increasing the dose of propylthiouracil, the effectiveness has been increased with a more satisfactory control of the thyrotoxicosis. Furthermore, the increase in size of the doses has not shown any tendency toward the development of any toxic reaction.

Another drug used in the treatment of thyrotoxicosis is radioactive iodine. This drug has not yet received extensive trial and its therapeutic advantages are still being evaluated to a large extent. The use of radioactive iodine has resulted as a side issue from much of the work that has recently been done in radioactive substances generally, and it was first advocated and tried in 1938 by Hertz, Roberts and Evans. At the present time these workers are recommending the use of 5 to 25 millicuries of the drug as a single dose, and this is given only to patients who have received no iodine therapy for at least a month and those who can be watched closely for a period of from 6 to 8 months. They feel that with the proper use of this drug satisfactory responses in fully 80 per cent of the patients with thyrotoxicosis can be obtained.

Of the complications that arise in the thyrotoxic state, one of the most difficult and trying is that of exophthalmos. Malignant exophthalmos is thought to be the result of the activity of thyroid stimulating hormone upon the eye, and as such offers a number of different and difficult problems in its control. The nature of the condition is not completely understood, but there is one warning that should be stressed. That is, a patient with progressive exophthalmos or malignant exophthalmos should not be subjected to a subtotal thyroidectomy too hurriedly because the removal of the thyroid tissue seems to stimulate the pituitary gland to the formation of the thyroid stimulating hormone and will tend to increase the exophthalmos rather than decrease it. Continued use of thiouracil and other goitrogenic drugs will, in similar manner, stimulate the pituitary to the elaboration of the thyroid stimulating hormone and will increase the exophthalmos rather than decrease it. Although various therapeutic measures have been tried, none have proven to be completely satisfactory. One therapeutic approach is the use of small doses of thyroid extract in combination with small amounts of iodine; the thyroid extract is advocated to keep down the elaboration of the thyroid stimulating hormone in the pituitary gland and the iodine to control the thyrotoxic state. Other measures are the x-ray treatment of the pituitary gland and decompression of the orbit.

Another complication of the thyroid state which occurs in thyrotoxicosis is that of the thyroid crisis. This still is managed more by the use of large doses of iodine, sometimes given intravenously, oxygen, intravenous glucose, and sedation of the patient.

Complications of toxic adenoma of the thyroid are principally those of a cardiac nature. Disturbances of rhythm, the most important of which is aricular fibrillation, is usually controlled by the measures which control the thyrotoxic state. When congestive heart failure is present the treatment is that of the congestive failure along with the control of the thyrotoxicosis.

Treatment of malignant diseases of the thyroid gland for the large part is surgical in conjunction with x-ray therapy but a great deal of hope is arising now from the use of the radioactive preparations.

At the present time the general therapeutic approach toward the management of thyrotoxicosis is along two lines. One is the preparation of the patient for sub-total thyroidectomy by the use of thiouracil or propylthiouracil combined with iodine, and the other is designed toward the complete medical management of the patient by the continued use of thiouracil and propylthiouracil. In following this latter course, the disadvantages of thiouracil are quite apparent but it may be that propylthiouracil will control the condition satisfactorily and in the future continue to show no evidence of toxic features.

XUM

TWO INTERESTING EAR CASES

ALBERT G. SCHNURMAN, M.D.,
Roanoke, Virginia.

CASE I.— S. J., male, age 35, who had had scarlet fever 25 years ago complicated by left otitis media and spontaneous rupture of the drum followed by purulent drainage for about a year. This drainage cleared up spontaneously and the patient was left with a perforation of the drum in the posterior inferior quadrant approximately 3 mm. in diameter. Hearing was normal in both ears. I first saw the defect in the drum on October 16, 1942, and at least six other physicians had also seen the perforation during the course of numerous examinations for the Army and Navy. And because of the defect the patient had been disqualified for military service. On October 5, 1945, because of earache due to myringitis of the left drum, I prescribed penicillin ear drops—200,000 units in an ounce of isotonic saline. The patient was advised to use 4 drops in the ear three times a day. The symptoms were entirely relieved in 48 hours and the drum returned to normal within 72 hours. The patient and I agreed to try the drops for an indefinite period in the hope that the penicillin might have some favorable effect on healing of the perforation. On February 4, 1947, examination revealed the drum to be perfectly normal. There was no evidence of the perforation. In order to check my own observation, I had the patient examined by an ear specialist who felt that the drum had healed over and the perforation was no where to be seen. Since chronic perforation is rarely if ever know to heal, I cite this case as a matter of interest. I feel that there must have been a long-standing infection at the margin of the perforation, and that, after the long-continued use of penicillin, the infection was checked, allowing new cells to bridge over the gap in the drum.

CASE II.—V. R. male, age 35, came in with complaint of a super-sensitive ear. He claimed he could hear voices at great distances when others could not. He could hear crickets at 100 yards with his left ear. He could get the pitch of a musical note while singing without the aid of a piano or violin string. Lately, however, it seemed that this hypersensitive ear was making him nervous. In short, he was hearing too much. Examination of the right drum was normal. Examination of the left drum, however, revealed a fine, taut, thread of drum membrane drawn out very finely and attached to the drum superiorly and inferiorly by bands of fine threads. The main thread stood out about 1 mm. from the surface of the drum. The following sketches will illustrate the anatomical relationships.

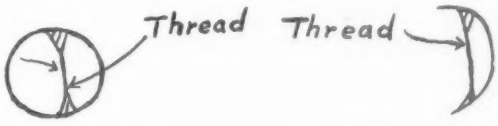

Fig. 1.
Front view of drum.

Fig. 2.
Side view of drum.

It is felt that this band of tissue acted as an aerial or antenna and was set into vibration, by higher frequency sound waves than the regular drum. These waves were in turn transmitted to the main drum and the patient was truly hearing too much. He was advised to think the matter over and either use his anatomical defect as an asset in the field of music or in the physics of sound, or to go to an ear specialist and have the band clipped at both ends and removed. As yet, I have heard no more from the patient in this respect.

SUMMARY

Two interesting rare conditions of the ear drum are presented:

1. A case of healing of a chronic perforation.
2. A case of "supersensitive ear" due to anomaly of the drum.

501 Shenandoah Life Bldg.

COORDINATION OF URBAN AND RURAL PUBLIC HEALTH*

C. HOWE ELLER, M.D., DR. P. H.,
Director, Richmond City Health Department,
Richmond, Virginia.

The desirability of close coordination of urban and rural public health activities would seem to be axiomatic. But, even if we didn't already know it, the very fact that it is necessary to speak on the subject indicates that it is usually imperfect and often non-existent.

I will no more than mention many of the reasons in favor of coodination between cities and the surrounding country, because all of you are familiar with them. Boundaries are often artificial, especially when metropolitan areas extend beyond them; particularly with modern transportation, some communicable diseases may spread as easily from community to community as from neighbor to neighbor; many of the city's public health problems come from without—such as contaminated water, milk, shellfish. Contrarily, a town may provide the surrounding area with problems from its sewage disposal, garbage and pollution of streams.

All of these things make it plain that, while city and rural health problems may be different in some ways, they cannot be separated and, therefore, should be approached together; that each area is dependent on the other if a good job is to be done. Furthermore, policies and procedures should be similar. Nothing is more irritating to a physician than to have to deal with one policy in a town or city and an entirely different one a few blocks away in the county. Nothing is more confusing to the layman—nor more likely to make him think that the health department doesn't know its business—than finding that in Centralia the health department advises combinded diphtheria and pertussis inoculation, but not before nine months of age, whereas the surrounding county gives only the former and insists on it by six months.

The particular point I would like to make is that the reasons for coordination are increasing, not only because of the way people live—we now not only live in the suburbs and work in the city, but we live in the city and work in an industrial plant five or ten miles distant— but mainly because of the way public health is developing. The scope of public health is extending rapidly, and there can be no doubt that there will be more and larger programs, the basis of which will consist mainly in providing various aspects of medical care. The beginnings of such specific control programs, such as cancer, rheumatic fever, heart disease and geriatrics, are already with us, and the broader provision of medical care is surely not far away. These types of programs inevitably mean specialized diagnostic facilities, specialized treatment facilities, and, of course, hospitalization. Everything, then, must center around hospitals—the large medical center, a few well located general hospitals, a larger number of scattered smaller hospitals, and many health centers. All of these will be located in cities and towns of varying size, with the exception of some of the health centers. The rural areas must feed to them, and the hospitals and centers should be well integrated. It becomes essential, therefore, that planned coordination must exist between rural areas and cities, and between cities themselves, regardless of size, if the Public Health program of the future is to work at all smoothly.

The success of such an integrated program will depend, in part, on overcoming certain handicaps which have existed in the past, such as:

1. Jealousy, which often exists between contiguous counties and cities.

2. County fear of dominance by a large city.

3. Semi-independence of the cities on the one hand and consideration as step-children by the State on the other.

4. Feeling of self-sufficiency, particularly on the part of cities, and therefore unwillingness to either receive help or to aid other areas. In these days no communities are completely self-sufficient.

5. Subsidy policies of the Federal Government and States. Their purpose, that of helping poorer areas, has been good, but more definite progress can be made in the future by alloting a larger proportion to city development.

6. Political interference with Public Health—

*Read at the Virginia Conference of State Health Workers, May 28, 1947.

frequently more difficult to avoid in cities, but it can be avoided by a strong health department, particularly with State support, since the people and the best politicians don't really want political Public Health.

Having shown the need for coordination— with which I am sure few will quarrel, and having touched on some of the difficulties, obviously the next and most important question is, what specifically can be done to achieve it?

There are three possible approaches that may be used:

1. Voluntary cooperation
2. Planned coordination, and
3. Official consolidation.

VOLUNTARY COOPERATION

This is the weakest approach and least likely to produce the desired results because, first of all, it pre-supposes willingness on the part of all concerned to cooperate—city health departments, county health officers, State Health Department officials. Lack of willingness on the part of one spoils it for everyone else. Furthermore, granted that everyone is anxious to cooperate, it would be terrifically complicated and time consuming, because it is not just a matter of cities getting together with adjoining counties; it involves, to some degree, cooperation with a great many counties as well as with each other, and with the State Health Department.

Nevertheless it is a method that should be tried *until a more specific and definite plan can be* developed, and to this end some or all of the following would be helpful:

1. Regular periodic conferences between Health Officers of cities and adjoining counties, or between those of adjoining counties.

2. Joint planning through some other agency. As an example, the Richmond Area Community Council brings together tlte Henrico ond Chesterfield County Health Officers with the City Health Officer. Although this has not been too fruitful as to definite results as yet, it does remain as one method of contact.

3. Mutual exchange of new or changed policies between contiguous health units.

4. Through the State Health Department: By having field personnel visit cities as well as counties, there would be provided an opportunity for an interchange of ideas beneficial to the programs of not only the city but the State agency. Standing invitations, if necessary, should be issued by cities to State Health Department personnel. I have already made such an invitation verbally and informally and would like to repeat it here. We shall be delighted to have State Health Department personnel visit us regularly or at any time they so desire.

5. The creation of an active State Public Health Association where all public health people and agencies can get together to discuss their problems and initiate joint planning.

PLANNED COORDINATION

By this I mean bringing all cities into the statewide public health program. The development of such a plan would require a positive approach on the part of the State Health Department. This would involve:

First—that cities be willing to give up a certain amount of their autonomy, and

Secondly—that the State Health Department bring the cities into its planning council in order that their views might be expressed and included in the over-all program. Also, as a part of this, it would be very helpful if there could be set up a reasonable but definite formula for Federal and State aid to cities as well as to rural areas.

In my opinion such "planned coordination" should be carred out, and I feel that most so-called "independent" cities would be willing to participate if it is to be truly a joint program.

OFFICIAL CONSOLIDATION

This third method is the ideal and would insure coordination with at least the immediately surrounding counties. It would provide joint city-county departments.

This, of course, has already been done with a number of smaller and some fair-sized cities—for example, the Joint Health Department of Charlottesville and Albemarle County. It should certainly be the objective for all towns and cities not large enough to support a well-manned, full-time department of their own. Ordinarily this would be the case up to a population of around 50,000.

Even when larger cities are involved this has been done in many parts of the country, as demonstrated by Louisville and Jefferson County in Kentucky, and Birmingham and Jefferson County in Alabama.

While there is perhaps not the same urgency as for smaller cities, it is nevertheless logical, and

XUM

should help provide more complete services for the surrounding county. In addition, it would aid in spreading the services of the currently none-too-plentiful supply of trained and experienced health officers.

In conclusion—

How far we can go along some or all of the lines suggested depends on all of us, for we are all concerned to a greater or lesser degree. It we can accept the need for closer coordination of urban and rural public health, then we can begin right now to work towards it. I can think of no better time and place than at a meeting such as this for making a start at least on periodic conferences between City and Rural Health Officers, and reactivation of the Virginia Public Health Association.

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——:The seven books of Paulus Aegineta. Translated from the Greek with a commentary embracing a complete view of the knowledge possessed by the Greeks, Romans, and Arabians on all subjects connected with medicine and surgery by Francis Adams. London: Printed for the Sydenham Society 1844. 3 v. 23 cm. (RC60.P18 A)

"The commentary gives a fuller account of Greek and Roman medicine (to some extent of Arabian also) than is elsewhere assessible in English, or perhaps in any modern language." Paul of Agina was the last of the Greek masters in medicine. He admits that he introduced nothing new or original, but his compilation is important in the history of medicine. He omitted from the obstetrician's practice podalic version that Soranus used so successfully on the living child some 500 years previously. On the other hand he described the "Walcher" position for difficult labor. His description of difficult labor is a classic. He says "difficult labour arises either from the woman who bears the child, or from the child itself, or from the secundines, or from some external circumstances. From the woman in labour, either because she is gross and fat, or because her womb is small, or because she has no pains, or is affected with fear, or because the uterus or some other part is imflamed or otherwise diseased, or because, from some natural weakness, she is unable to expel the foetus, or because labour is premature." Today we know very little more about the greatest single cause of prolonged and difficult labor, i.e. the behavior of the uterus.

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PUBLIC HEALTH

L. J. ROPER, M.D.
State Health Commissioner of Virginia.

The report of the Bureau of Communicable Diseases of the State Department of Health for December 1947 as compared with the same month in 1946, and for the period of January through December 1947 compared with the same period in 1946, is as follows:

	Dec. 1947	Dec. 1946	Jan.-Dec. 1947	Jan.-Dec. 1946
Typhoid and Paratyphoid	4	7	160	123
Diarrhea and Dysentery	112	151	4,920	2,711
Measles	339	228	8,000	13,443
Scarlet Fever	132	193	1,316	2,721
Diphtheria	47	50	274	548
Poliomyelitis	1	11	173	143
Meningitis	6	12	102	206
Undulant fever	2	10	75	70
Rocky Mountain Spotted Fever	0	0	67	93
Tularemia	10	20	60	77

MODIFICATIONS OF RULES AND REGULATIONS IN CONTAGIOUS DISEASES

On December 10, 1947, the State Board of Health adopted the revised recommendations of the American Public Health Association as the official rules, regulations and directions for the control of communicable diseases in Virginia. Similar action has been previously taken by ten states, by Alaska and, in part, by other areas. The new regulations became effective as of January 1, 1948, and information and detail concerning the various changes will be directed to all reporting physicians in the State.

As previously indicated, revision is subsequent to recommendations of the American Public Health Association which have been approved by the United States Public Health Service, the United States Navy and other official agencies. They are based upon authoritative appraisal of existing epidemiological information and methods of control for each communicable disease. Every five years a subcommittee on communicable disease control of the American Public Health Association's Committee on Research and Standards meets and is responsible for such revision and addition as appears necessary. The major change recommended in the 1945 meeting was the abolishment of quarantine in meningococcic meningitis, poliomyelitis and scarlet fever. For some years it has been recognized in these diseases that quarantine has been relatively ineffective for the following reasons:

1. Wide experience has clearly demonstrated the relative ineffectiveness of quarantine in these and other diseases.

2. Normally the low secondary attack rates fail to justify the time and effort expended by public health personnel in the administration of quarantine.

3. Serious economic losses to wage earners and to school children occur through unnecessary quarantine measures.

4. Existing regulations frequently fail to provide control for carriers and missed or undiagnosable cases.

5. Major advances in prevention and therapy have been made through the use of sulfonal drugs and antibiotics, which has resulted in decreased secondary attack rates and infectivity periods.

6. Former rules and regulations failed to differentiate between the contagious case, so controlled that little or no menace existed, and the one in which inadequate facilities for isolation were offered or practised.

It is understood that isolation of at least fourteen days is still required in meningitis, poliomyelitis and scarlet fever, and that the technique of isolation be satisfactory to the health officer and the attending physician. The health officer retains the power of quarantine in any contagious disease where potential menace to the public health exists. Contacts are permitted to continue with normal activities as long as they show no sign of contagion. Quarantine may still be required in those areas throughout Virginia where existing or new rules and regulations are adopted and enforced.

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FORUM

Coroners of the Commonwealth and Physicians Designated to Perform Postmortem Examinations.

Dr. Herbert S. Breyfogle, Chief Medical Examiner for Virginia, announces the following as the corrected list of coroners of Virginia and those designated to perform postmortem examinations in connection with the new Coroner law:

COUNTY AND NAME AND ADDRESS OF CORONER

ACCOMACK
Dr. J. L. DeCormis, Accomack
Dr. R. J. White, Keller

ALBEMARLE
Dr. E. D. Davis, Crozet
Dr. Percy Harris, Scottsville

ALLEGHANY
Dr. L. A. Houff, Clifton Forge
Dr. Michael I. Hanna, Covington

AMELIA
Dr. J. T. O'Neal, Amelia

AMHERST
Dr. S. R. Arnold, Amherst
Dr. Lyddane Miller, Amherst

APPOMATTOX
Dr. C. G. O'Brien, Appomattox

ARLINGTON
Dr. W. C. Welburn, Arlington

AUGUSTA
Dr. Francis P. Floyd, Waynesboro

BATH
Dr. I. T. Hornbarger, Hot Springs

BEDFORD
Dr. E. L. Johnson, Bedford
Dr. W. V. Rucker, Bedford

BLAND
Dr. George B. Kegley, Bland

BOTETOURT
Dr. W. N. Breckinridge, Fincastle

BRUNSWICK
Dr. T. H. Anderson, Lawrenceville
Dr. F. N. Mallory, Lawrenceville

BUCHANAN
*Dr. C. F. Johnson, Jr., Grundy

BUCKINGHAM
Dr. Garland Dyches, Dillwyn
Dr. W. A. Pennington, Buckingham

CAMPBELL
Dr. R. H. Cross, Concord Depot
Dr. J. P. Kent, Altavista
Dr. W. O. Tune, Brookneal

*Resigned January 1, 1948.

CAROLINE
Dr. J. G. Broaddus, Bowling Green

CARROLL
Dr. J. G. Cox, Hillsville
Dr. W. A. Porter, Hillsville

CHARLES CITY
Dr. J. R. Parker, Providence Forge

CHARLOTTE
Dr. H. C. Chalmers, Brookneal
Dr. Thomas Watkins, Drakes Branch

CHESTERFIELD
Dr. W. H. Copley, South Richmond
Dr. P. L. Hill, Colonial Hts. (Petersburg)
Dr. J. F. Parkinson, Chester
Dr. Wm. F. Grigg, Jr., Medical College, Richmond

CLARKE
Dr. Frank Tappan, Berryville

CRAIG
Dr. W. F. Mitchell, New Castle

CULPEPER
Dr. J. L. Stringfellow, Culpeper

CUMBERLAND
Dr. E. B. Nuckols, Cumberland
Dr. N. P. Snead, Cartersville

DICKENSON
Dr. R. L. Phipps, Clintwood
Dr. T. C. Sutherland, Haysi.

DINWIDDIE
Dr. W. J. Mayes, Church Road

ELIZABETH CITY
Dr. P. J. Parker, Hampton

ESSEX
Dr. J. W. Chinn, Tappahannock
Dr. J. M. Gouldin, Tappahannock

FAIRFAX
Dr. Nelson Podolnick, East Falls Church

FAUQUIER
Dr. G. H. Davis, Warrenton

FLOYD
Dr. F. C. Bedsaul, Floyd

FLUVANNA
Dr. A. C. Whitley, Palmyra
Dr. J. H. Yeatman, Fork Union

FRANKLIN
Dr. E. C. Jamison, Rocky Mount
Dr. F. B. Wolfe, Rocky Mount

FREDERICK
Dr. John R. Troxell, Winchester

GILES
Dr. S. A. Tuck, Pembroke
Dr. M. C. Newton, Narrows

GLOUCESTER
Dr. J. W. Smith, Hayes Store
Dr. H. A. Tabb, Gloucester

GOOCHLAND
Dr. W. S. Lloyd, Goochland

GRAYSON
Dr. J. C. Moxley, Independence

GREENE
Dr. M. D. Foster, Stanardsville

GREENSVILLE
Dr. M. G. Baynard, Emporia
Dr. G. M. Naff, Emporia

HALIFAX
Dr. C. B. White, Halifax
Dr. N. H. Wooding, Halifax

HANOVER
Dr. A. B. Gravatt, Ellerson
Dr. A. E. Murray, Beaverdam
Dr. Judson Vaughan, Ashland

HENRICO
Dr. J. C. LeFon, N. Richmond

HENRY
Dr. L. A. Faudree, Bassett
Dr. D. H. Mason, Ridgeway

HIGHLAND
Dr. C. B. Fox, Monterey
Dr. B. T. Swecker, Blue Grass

ISLE OF WIGHT
Dr. Rea Parker, Smithfield

JAMES CITY
Dr. A. M. Sneed, Toano

KING GEORGE
Dr. R. N. Harris, Port Royal

KING & QUEEN
Dr. R. D. Bates, Newtown

KING WILLIAM
Dr. W. H. Hosfield, West Point
Dr. A. W. Lewis, Aylett

LANCASTER
Dr. A. B. Gravatt, Jr., Kilmarnock
Dr. M. E. Norris, Kilmarnock

LEE
Dr. T. S. Ely, Jonesville
Dr. G. C. Sumpter, Rose Hill

LOUDOUN
Dr. W. P. Frazer, Hamilton

LOUISA
Dr. H. W. Judd, Mineral

LUNENBURG
Dr. H. B. Showalter, Kenbridge

MADISON
Dr. A. E. Powell, Madison

MATHEWS
Dr. R. B. Bowles, Mathews
Dr. J. R. Gill, Mathews

MECKLENBURG
Dr. H. H. Braxton, Chase City
Dr. W. J. Ozlin, South Hill

MIDDLESEX
Dr. H. F. Hoskins, Saluda

MONTGOMERY
Dr. C. F. Manges, Blacksburg
Dr. A. M. Showalter, Christiansburg

NANSEMOND
Dr. G. R. Joyner, Suffolk

NELSON
Dr. Estes Kidd, Lovingston

NEW KENT
Dr. J. R. Parker, Providence Forge

NORFOLK
Dr. L. C. Ferebee, S. Norfolk

NORTHAMPTON
Dr. J. E. Gladstone, Exmore
Dr. J. G. Goode, Cape Charles

NORTHUMBERLAND
Dr. M. M. Neale, Heathsville

NOTTOWAY
Dr. J. M. Hurt, Blackstone

ORANGE
Dr. J. N. Clore, Orange
Dr. H. C. McCoy, Gordonsville

PAGE
Dr. G. H. Long, Luray

PATRICK
Dr. A. M. Gates, Ararat
Dr. B. A. Hopkins, Stuart

PITTSYLVANIA
Dr. H. H. Hammer, Chatham

POWHATAN
Dr. W. S. Lloyd, Goochland

PRINCE EDWARD
Dr. W. E. Smith, Farmville

PRINCE GEORGE
Dr. W. C. Webb, Disputanta

PRINCESS ANNE
Dr. H. F. Dormire, Virg'nia Beach

PRINCE WILLIAM
Dr. E. H. Marsteller, Manassas

PULASKI
Dr. R. F. Thornhill, Pulaski

RAPPAHANNOCK
Dr. J. P. Snead, Sperryville

RICHMOND
Dr. J. H. Hare, Warsaw
Dr. Paul C. Pearson, Warsaw

ROANOKE
Dr. John Hurt, Vinton
Dr. A. J. Russo, Salem
Dr. Russell Smiley, Salem

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ROCKBRIDGE
Dr. E. V. Brush, Lexington
Dr. E. P. Tompkins, Lexington

ROCKINGHAM
Dr. F. L. Byers, Harrisonburg

RUSSELL
Dr. W. C. Elliott, Lebanon
Dr. James Elliott, Lebanon
Dr. G. H. Wolfe, Abingdon

SCOTT
Dr. W. L. Griggs, Jr., Gate City
Dr. Fred McConnell, Gate City
Dr. G. C. Honeycutt, Gate City

SHENANDOAH
Dr. H. W. Miller, Woodstock

SMYTH
Dr. D. C. Boatwright, Marion
Dr. R. D. Campbell, Saltville

SOUTHAMPTON
Dr. J. J. Grizzard, Branchville
Dr. T. A. Morgan, Franklin

SPOTSYLVANIA
Dr. J. E. Cole, Fredericksburg
Dr. R. M. Shelton, Spotsylvania

STAFFORD
Dr. L. F. Lee, Fredericksburg

SURRY
Dr. B. H. Knight, Surry

SUSSEX
Dr. R. B. McEwen, Wakefield
Dr. M. Rosenburg, Waverly

TAZEWELL
Dr. Rufus Brittain, Tazewell
Dr. James Peery, Richlands
Dr. H. A. Porter, Boissevain

WARREN
Dr. D. M. Kipps, Front Royal

WARWICK
Dr. M. L. Horne, Hilton Village
Dr. C. P. Jones, Hilton Village

WASHINGTON
Dr. G. H. Wolfe, Abingdon
Dr. J. A. Wolfe, Abingdon

WESTMORELAND
Dr. E. T. Ames, Montross
Dr. C. H. Griffith, Machodoc

WISE
Dr. N. F. Hix, Wise

WYTHE
Dr. E. M. Chitwood, Wytheville

YORK
Dr. L. O. Powell, Seaford

CITY AND NAME OF CORONER

ALEXANDRIA
Dr. J. A. Sims

BRISTOL
Dr. Guy C. Richardson

BUENA VISTA
Dr. R. R. Eason

CHARLOTTESVILLE
Dr. Gregory Magruder
Dr. James B. Twyman

CLIFTON FORGE
Dr. L. A. Houff

DANVILLE
Dr. H. A. Wiseman, Jr.

FREDERICKSBURG
Dr. J. E. Cole

HAMPTON
Dr. P. J. Parker

HARRISONBURG
Dr. F. L. Byers

HOPEWELL
Dr. A. T. Brickhouse

LYNCHBURG
Dr. James Wilkins

MARTINSVILLE
Dr. Jethro H. Irby

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PORTSMOUTH
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Dr. Wm. F. Grigg, Jr., Medical College
Dr. B. W. Haynes, Jr., Medical College

ROANOKE
Dr. Charles M. Irvin

SOUTH NORFOLK
Dr. L. C. Ferebee

STAUNTON
Dr. R. P. Bell, Jr.
Dr. Charles F. Gaylord

SUFFOLK
Dr. E. C. Joyner

WILLIAMSBURG
Dr. J. M. Henderson

WINCHESTER
Dr. John R. Troxell

PHYSICIANS OFFICIALLY DESIGNATED TO PERFORM AUTOPSIES

CORONERS

Dr. F. L. Byers, Harrisonburg
Dr. George M. Caldwell, Christiansburg
Dr. H. L. Dean, Radford
Dr. W. P. Frazer, Hamilton
Dr. L. C. Ferebee, South Norfolk
Dr. T. L. Gemmill, Radford
Dr. K. D. Graves, Roanoke
Dr. R. H. Grubbs, Christiansburg
Dr. J. Paul Kent, Altavista
Dr. C. D. J. Macdonald, Norfolk
Dr. E. H. Marsteller, Manassas
Dr. R. L. Phipps, Clintwood
Dr. James Peery, Richlands
Dr. Thomas B. Pope, Petersburg
Dr. Guy C. Richardson Bristol
Dr. A. M. Showalter, Christiansburg
Dr. Russell B. Smiley, Salem
Dr. W. E. Smith, Farmville
Dr. R. F. Thornhill, Pulaski
Dr. E. P. Tompkins, Lexington
Dr. James Wilkins, Lynchburg
Dr. G. Hunter Wolfe, Abingdon
Dr. Nat H. Wooding, Halifax
Dr. Charles M. Irvin, Roanoke

PATHOLOGISTS

Dr. Frank Apperly and Staff, Medical College of Virginia, Richmond
Dr. M. B. Beecroft, Elizabeth Buxton Hospital, Newport News
Dr. James Cash and Staff, University of Virginia, Medical School, Charlottesville
Dr. M. L. Dreyfuss, C. & O. Hospital, Clifton Forge
Dr. V. J. Dardinski, Clinical Laboratories Georgetown University, Washington, D. C.
*Dr. L. S. Kau, Memorial Hospital, Winchester
Dr. J. D. Kernodle, Alexandria Hospital, Alexandria
Dr. T. J. Moran, The Memorial Hospital, Danville
Dr. L. J. Motyca, General Hospital, Norfolk
Dr. A. F. Strauss, DePaul Hospital, Norfolk

FOR VETERANS HOSPITALS ONLY

Dr. Edgar Baron, Kecoughtan
Dr. Joseph Kriz, McGuire Hospital, Richmond
Dr. Simon Russi, McGuire Hospital, Richmond

OTHER

Dr. W. J. Sturgis, Nassawadox

*Resigned December 1, 1947.

Epileptic Seizures Reduced.

The drug known under the trade name of "mesantoin" is proving far more effective than other drugs in reducing grand mal seizures in epileptics, writes Anthony E. Loscalzo, M.D., New York, in the October 25 issue of *The Journal of the American Medical Association.*

Grand mal is a form of epileptic attack in which the sufferer loses consciousness, twitches, and gets blue in the face. For three years Dr. Loscalzo studied 67 cooperative patients afflicted with grand mal who for the first time were treated with mesantoin in combination with phenobarbital. Fifty-five of them had previously been taking diphenylhydantoin sodium, usually combined with phenobarbital. The rest had been taking phenobarbital alone.

Dr. Loscalzo reports that the change in treatment reduced the total number of grand mal attacks experienced by these patients approximately 60 per cent, lessened the severity of their convulsions, and produced fewer toxic reactions. In 22 of the patients the seizures ceased completely shortly after the new regimen was instituted.

New Books

Some recent books received at the Library of the Medical College of Virginia, Richmond, are the following, which are available to our readers under usual library rules:

Ackerman—Cancer: Diagnosis, treatment and prognosis.
Cooper—Nutrition in health and disease. 10th ed.
Cope—The early diagnosis of the acute abdomen. 9th ed.
Cross—Social customs.
Duvall and Hill—When you marry.
Elliot—Textbook of the nervous system.
Endocrinology of neoplastic diseases, a symposium.
Ferguson—Surgery of the ambulatory patient.
Gates and Warren—Handbook for the diagnosis of cancer of the uterus.
Gifford—Handbook of ocular therapeutics. 4th ed., rev.
Koos—Families in trouble.
MacBryde—Signs and symptoms.
Major—Physical diagnosis. 3rd ed.
Manual for teaching midwives.
Mettler—History of medicine.
Scobee—The oculorotory muscles.
Top—Communicable diseases. 2nd ed.
Van Riper—Speech correction. 2nd ed.
Vanderlehr and Heller—The control of venereal disease.
Walsh—Clinical neuro-ophthalmology.
Wexburg—Introduction to medical psychology.

XUM

WOMAN'S AUXILIARY TO THE MEDICAL SOCIETY OF VIRGINIA

President—MRS. J. L. DECORMIS, Accomac
President-Elect—MRS. R. M. REYNOLDS, Norfolk
Recording Secretary—MRS. M. H. HARRIS, West Point
Corresponding Secretary—MRS. HOLLAND TROWER, Eastville
Treasurer—MRS. REUBEN SIMMS, Richmond
Parliamentarian—MRS. E. LATANE FLANAGAN, Richmond
Historian—MRS. H. A. LATANE, Alexandria

Northampton-Accomac Auxiliary.

The regular quarterly meeting of this Auxiliary was held at the home of Mrs. J. Fred Edmonds, Accomac on January 13th, with eighteen members and one guest present.

A delicious luncheon and social hour preceded the business meeting which was opened by the president, Mrs. S. K. Ames, of Cape Charles.

An interesting exhibit of very old doctor's instruments was shown, including an old stethoscope, bleeder instrument, pestle and mortar, an instrument case containing saw, several very sharp double edged knives, tourniquet, tongue depressor, one of the very first microscopes, very, very small, with slides, an instrument called a probang used to remove foreign bodies from the stomach, lungs, bronchial tubes, etc., package of needles, very heavy linen thread, very fine pins, moulds for lead weights, old prescriptions to cure all ills, old saddle bags and copies of medical journals dating from 1851 to 1853, and a very fine set of anatomy plates in color. These were greatly enjoyed by all members, and Mrs. Ames gave an account of the medical students of those days, their problems, the cost of medical education, and their difficulties in obtaining it, the objections of the professors at that time to allowing women to attend the lectures, and forbidding them to be present at various operations.

A letter was read by Mrs. John R. Hamilton, *Hygeia* Chairman, from Northampton High School, and the Cape Charles High School thanking the Auxiliary for its gift subscriptions to these schools, and she also reported 32 subscriptions to *Hygeia*, the largest number ever to be reported at one meeting.

Mrs. Ames told of The Health Program Bill before the General Assembly for 1948, and discussed the Health Report of Medical Progress, which includes health, welfare, tuberculosis, and education.

Mrs. W. T. Green told of a Virginia physician who has been a patient at Blue Ridge for the past seven months, and who has been offered the use of The Leigh-Hodges-Wright Fund, in order that one more Virginia physician may be returned to practice as soon as possible. It was voted that this Auxiliary maintain this patient for one month as their guest.

Mrs. Green announced The March of Dimes, and told of The Infantile Paralysis Foundation's work of which Dr. W. T. Green is Chairman for Northampton County. She cited a case of infantile paralysis from Northampton County that is being treated at De Paul Hospital with county funds taking care of bills. State and Federal funds may be used should county funds give out. The average cost of treatment is from $1200.00 to $2000.00 per case. It can cost $10,000.00 for one patient in the iron lung.

The State President, Mrs. J. L. DeCormis announced the Mid-Winter Board Meeting at Richmond, January 20, and of several states offering prizes, and scholarships for essays, nursing and subscriptions to *Hygeia*, and *The Bulletin*.

The Auxiliary will be the guests of Mrs. John R. Hamilton and Mrs. W. T. Green, Jr., at Nassawadox on April 13th.

CATHERINE R. TROWER
(MRS. HOLLAND)
Chairman Press and Publicity.

BOOK ANNOUNCEMENTS

The Years after Fifty. By WINGATE M. JOHNSON, M.D. Professor of Clinical Medicine and Chief of Private Diagnostic Clinic, Bowman Gray School of Medicine of Wake Forest College. With a Foreword by Morris Fishbein, M.D. Editor, *Journal of the American Medical Association*. Whittlesay House McGraw-Hill Book Company, Inc. New York:London. Price $2.00.

This little book of 153 pages is well worth reading by those who feel that they are growing old. Dr. Johnson traces the aging process of the various organs and systems of the body in a simple and attractive manner. The loss of physical vigor and stamina is counterbalanced by the growth of wisdom. He makes old age positively alluring to those who have been so fortunate as to have developed some mental hobbies.

M. P. R.

EDITORIAL

Rabies

MOST Americans have a warm spot in their hearts for dogs and the dog is frequently referred to as man's best friend. As we consider his usefulness in hunting, for protection, or as a playmate, not many will dispute this latter statement. It must be accepted, however, that the dog or other valued animals, when infected with rabies, may suddenly change to man's worst enemy. When this tragedy occurs the rabid animal may attack all who come within his range, necessitating expensive and frequently painful emergency medical care for all involved.

The serious nature of this problem is adequately demonstrated by the national report of 52,473 rabid animals reported in the period 1940-1945. An increase of 7,913 or 31.0 per cent is noted for 1943-1945. Rabies was held responsible for 225 human deaths in this same period, with 121 or an increase of 17 fatalities in the second three years. In Virginia, 164 animal rabies and 2 human cases were recorded in 1947, and 108 animals and one human case in 1946. Seventy-five per cent of the 1947 animal rabies' prevalence occurred in six of the one hundred Virginia Counties where, obviously, control measures applied were most inadequate.

Dr. H. W. Schoening, of the United States Department of Agriculture, has aptly pointed out, "Rabies is an outstanding example of a dangerous disease which could be controlled or eventually eradicated in this country, but which is not under control because of failure to impose and thoroughly carry out uniform regulations." This comment is confirmed, not only by increasing prevalence but also through a recent comprehensive and authoritative report of the Public Health Relations Committee of the New York Academy of Medicine. This was published by the United States Public Health Service and is based upon official information from all States and the District of Columbia and seven of nine Canadian Provinces. The legislative and administrative facilities provided in rabies control in these various areas are described as "chaotic". Important recommendations are presented in the report which might well be carefully studied for adoption by Virginia and many other States in which control measures are indicated.

During the seven year period, 1940-1946, rabies is responsible for the horrible death of 225 Americans, men, women and children. Six needless deaths occurred in Virginia during the past eight years. When treatment is required subsequent to animal bite, the economic loss in medical care and in time is an appreciable major factor in this problem, and this does not include the physical and mental distress resulting from the injury. It is conservatively estimated that the nation suffers an economic loss in excess of $200,000 per annum through animal rabies. From the view point of the individual owner and the community this loss is frequently a serious matter.

The problem in Virginia is sufficiently important to necessitate immediate legislative and administrative action. Responsibilities for control and prevention should be placed in one department empowered with sufficient authority to continuously operate an approved program. Such states as Massachusetts and New York and abroad, England and Australia, have practically eradicated rabies through effective programs.

W. A. BROWNE, M. D.

EDITOR'S NOTE: Director, Communicable Disease Control, Virginia State Health Department, Richmond.

Anesthesiology

FOR more than four years we have been celebrating centenaries of the discovery of anesthesia. The importance of the discovery cannot be overemphasized. It was the first of the two great discoveries that made modern surgery possible. Today one can scarcely imagine what surgery would be like without anesthesia and asepsis. A centenary is not only a time for looking backward, but is also a time for looking forward. A pertinent question now is what place anesthesiology should occupy in the medical curriculum and what part the anesthetist should play in surgery.

Already certain medical schools have departments of anesthesiology where teaching and research on a more or less large scale is conducted. McGill, the University of Wisconsin and Louisiana State University are notable examples. The *Monthly* was fortunate in having the Chief of the Department at McGill as guest editor in January. In addition some of the large clinics, such as the Mayo Clinic and the Lahey Clinic, have similar departments. Here the anesthetist not only plans and supervises the anesthesia, but also has charge of all intravenous administrations and blood transfusions.

At present most of the anesthesia throughout the land is induced by dentists, and by nurses and doctors without special training. Their ideas and the training they have received vary tremendously. As would be expected the results also vary widely, —just how widely it is difficult to say. On the whole the results are good compared with what they were in the past. Seldom do we hear of an anesthetic death. If you asked the coroner, he would probably give present day anesthesia a good report. On the other hand there are many deaths in which the anesthesia may have had a part, not that it was badly administered, but choice of the type of anesthesia was at fault. To evaluate this statistically, is impossible, but seldom do we attend a conference upon mortality reports, where this question is not brought up. This is particularly true of maternal deaths. Should this woman with a cardiac involvement have been given ether or that toxic patient been given a general anesthetic, are questions we hear at every meeting. The deaths are charged to the heart lesion or to the toxemia, but the real question is, how many of these patients could have been saved if the anesthesia had been different. The difference between a specialist in anesthesia and one less adequately trained is shown more convincingly in the postoperative comfort of the patient. Once the surgeon (and the patient) has had the benefit of the specialist he will want no other.

The time has passed when any one form of anesthesia is adequate. We no longer hear the heated arguments about whether ether is better than chloroform, or nitrous oxide is better than ethylene or cyclopropane. Nor is so much emphasis put on the various gadgets as formerly. The possession of a good set of clubs does not make a good golfer. Good management before, during and after operation is the hall mark of a specialty status, and this we are beginning to see in various places throughout the land. We are beginning to learn that the anesthetist is an important and essential member of the surgical team. The surgeon already knows, and the public should be taught that good anesthesia is good insurance, and that competent management of the anesthesia problem is worth what little it costs.

Dr. Julian Rawls, 1881-1948

ON January 18th, Dr. J. L. Rawls, the ninetieth president of the Medical Society of Virginia, died in a Norfolk hospital after an illness of several months. Dr. Rawls was one of Norfolk's outstanding surgeons and was a leader in civic and

educational affairs. The Tidewater Hospital Service Association, of which he was president since its inception in 1935, owes much of its success to his foresight and wisdom. He was also responsible in a large measure for the establishment in 1938 of a diagnostic tumor clinic in Norfolk. In October of last year he received the first J. Shelton Horsley Memorial Award of Merit, presented by the Virginia Division of the American Cancer Society in recognition of his contributions to the cause of cancer control.

Julian Lamar Rawls, the son of Dr. Gavin Rawls and Mrs. Susan Norfleet Rawls, was born in Carrsville, Isle of Wight County, July 26, 1881. He received his academic training at Franklin Academy in Franklin and at the University of Richmond, after which he studied medicine at the Medical College of Virginia. Upon his graduation in 1904, he served as interne at St. Vincent DePaul and at Sarah Leigh (Leigh Memorial) Hospitals. Since 1910 he has been on the staffs of St. Vincent DePaul, the Norfolk General and the Leigh Memorial Hospitals, and at one time or another was the president of each. During World War II, he was chairman of the medical division of the procurement and assignment service of the Second Congressional District. He held the rank of Lieutenant Commander in the Naval Reserve (1933-1939), and was later surgeon in the United States Public Health Service Reserve. Dr. Rawls was past president of the Norfolk County Medical Society, the Seaboard Medical Society, the Southeastern Surgical Congress and the Association for the Study of Neoplastic Diseases.

Dr. Rawls has worked diligently for the medical profession in Virginia. He served on many important committees of the Medical Society of Virginia and in its House of Delegates and on its Council. His presidency was noteworthy for expeditious conduct of the business of the Society. It was in his administration that the department of Public Relations was inaugurated. At the time of his death, he was on the Governor's Advisory Legislative Council on Medical Matters.

He is survived by his wife, the former Miss Elizabeth C. Carlos, of Baltimore; two daughters, Miss Eleanor Rawls of Norfolk and Mrs. William C. Longua of Montclair, N. J.; three grandchildren and two sisters, Mrs. William A. Biggs of Baltimore and Mrs. R. S. Dodson of Westchester County, N. Y.

Dr. J. E. Knight, Councilor from the Eighth District

THE January *Monthly* announced the death of Dr. J. E. Knight of Warrenton. The news came as we were going to press and we were unable to do more than announce the sad fact. On December 30th, while interviewing a patient in his office, he had a heart attack and died within an hour. Thus passed a good doctor in the way he probably would have chosen—characteristically of the doctor's disease, while busy at his work.

John Elwood Knight was born December 11, 1883, in Fredericksburg, the son of John T. Knight. He graduated at Fredericksburg College in 1905 and at the Medical College of Virginia in 1908. His entire professional life was spent in Fauquier County. At first he located in Bristersburg, but in 1929 he removed to Warrenton, where he entered into the life of the community to an unusual extent. He was a vice-president of the Fauquier County Medical Society and a director of the Physicians' Hospital, Inc., of Warrenton. Besides he took an active part in the Warrenton Methodist Church, was a Rotarian and a member of the Mount Carmel Lodge No. 133 A.F. & A.M. and Acca Shrine Temple, Knights Templar. He was also a 32nd Degree Mason.

XUM

Dr. Knight was actively interested in the Medical Society of Virginia. He was Councilor for the Eighth District for six terms between 1928 and 1940. In 1946 he was elected for his seventh term. In his untimely death the Society loses a loyal and wise Councilor.

SOCIETIES

The Albemarle County Medical Society

Held its regular meeting on January the 8th, at which time the following officers were elected for 1948: President, Dr. Percy Harris, Scottsville; vice-president, Dr. W. Norman Thornton, Charlottesville; and secretary-treasurer, Dr. George Cooper, Jr., Charlottesville (re-elected).

Arlington County Medical Society.

At its first meeting for 1948, held January 15th, several new members were admitted, following which Dr. John Leary gave an interesting talk on "The Diagnosis of the Nervous Patient".

Dr. Walter P. Hammer is president of this Society and Dr. Leo Solet secretary.

Fourth District and Southside Virginia Medical Society.

At its December meeting, the following officers were elected: President, Dr. Herbert Jones, Petersburg; vice-presidents, Drs. P. L. Hill, Petersburg; and J. B. Kiser, Emporia; secretary-treasurer, Dr. William S. Sloan, Petersburg; and chairman of steering committee, Dr. Fletcher J. Wright, Jr., Petersburg.

The Lynchburg Academy of Medicine

Met on January 12th with Dr. H. L. Riley, Jr., new President, presiding. Dr. F. R. Whitehouse presented a paper on "Gastroscopy", and in accordance with the By-Laws, the new secretary was elected at this time. Dr. John T. T. Hundley was named for this position.

Patrick-Henry Medical Society.

The regular quarterly meeting of the Patrick Henry Medical Society was held at the Broad Street Hotel in Martinsville on January 9th.

The following committees were appointed: *Program,* Dr. B. A. Hopkins, Chairman, Dr. Henkel Price, Dr. G. B. Dudley; *Membership,* Dr. T. H. Dickerson, Chairman, Dr. L. A. Faudree, Dr. W. C. Akers; *Ethics,* Dr. F. B. Teague, Chairman, Dr. Gordon J. Axelson, Dr. D. L. Fleshman; *Public Relations,* Dr. J. H. Irby, Chairman, Dr. John W. Clark, Dr. Brown Dudley, Dr. D. H. Mason, Dr. J. T. Shelburne.

Visitors present were Dr. W. C. Brann of South Boston, Dr. J. R. Clark, and Hon. Richard Broaddus.

The speaker of the evening was Mr. Henry Johnson, head of Public Relations Department of the Medical Society of Virginia. President Thompson introduced Mr. Johnson who spoke on Medical Public Relations.

J. H. IRBY, *Secretary*

Warwick County Medical Society.

On December 18th, the following officers were elected for the ensuing year: President, Dr. William Mitchell; vice-president, Dr. William Hart Woodson; and secretary-treasurer, Dr. George S. Grier, III. All are of Newport News. Following the business session, the Society adjourned to attend the annual oyster roast at Mills Wharf, Seaford. They were accompanied by members of the Woman's Auxiliary.

The South Piedmont Medical Society

Held its 77th meeting at the Virginian Hotel, Lynchburg, on November 12th, under the presidency of Dr. L. P. Bailey, Nathalie. The following scientific program was presented: "Country Doctor 1947" by Dr. Nat Wooding, Halifax; "Acute Respiratory Infections" by Dr. Harvey C. Brownley, Lynchburg; "Some Pathological and Surgical Aspects of Lung Tumors" by Dr. Howard Bradshaw, Professor of Surgery, Bowman-Gray School of Medicine, Winston-Salem, North Carolina; "Pleurisy with Effusion" by Dr. Lemuel R. Broome, Danville; and "Practical Ophthalmology" by Dr. Frederick M. Morrison, Lynchburg.

Officers elected for 1948 are: President, Dr. Snowden C. Hall, Jr., Danville; vice-presidents, Drs. William Watkins, South Boston, Harold L. Riley, Lynchburg, and G. V. Thompson, Chatham; and secretary-treasurer, Dr. George B. Craddock, Lynchburg, re-elected. The next meeting will be in the Spring at South Boston.

XUM

The Virginia Peninsula Academy of Medicine

Held its January meeting on the 19th with Dr. Paul Hogg of Newport News presiding. There was an attendance of ninety and the speaker of the evening was Dr. Russell L. Haden of the Cleveland (Ohio) Clinic, whose subject was "Leukemia". Dr. Haden attended upon the invitation of Dr. Russell Buxton. Dr. Chester D. Bradley is secretary of the Academy.

NEWS

Southern Medical Association Officers.

At the meeting of the Association held in Baltimore in November, Dr. Lucien A. LeDoux, New Orleans, was installed as president, and the following officers elected: President-Elect, Dr. Oscar B. Hunter, Washington, D. C.; Vice-Presidents, Drs. Hamilton W. McKay, Charlotte, N. C., and Charles Reid Edwards, Baltimore; Secretary-Manager, Mr. C. P. Loranz, Birmingham (reelected); and Editor of Journal, Dr. M. Y. Dabney, Birmingham (reelected). Dr. T. Dewey Davis, Richmond, is Councillor for Virginia. The following doctors from Virginia were named on the various sections: Medicine — Dr. H. B. Mulholland, University, vice-chairman; Dermatology and Syphilology—Dr. J. W. Anderson, Norfolk, vice-chairman; Allergy—Dr. J. Warrick Thomas, Richmond, chairman, and Dr. W. Ambrose McGee, Richmond, vice-chairman; Physical Medicine—Dr. Walter J. Lee, Richmond, secretary; Urology—Dr. Samuel A. Vest, Charlottesville, vice-chairman; Women Physicians — Dr. Emily Gardner, Richmond, chairman. Mrs. E. Latane Flanagan, Richmond, was elected recording secretary of the Auxiliary.

American College of Chest Physicians.

The Southern Chapter of the College met conjointly with the Southern Medical Association in Baltimore in November. Dr. Herbert L. Mantz, Kansas City, Missouri, was elected president; Drs. Dean B. Cole, Richmond, and David H. Waterman, Knoxville, Tennessee, vice-presidents; and Dr. Hollis E. Johnson, Nashville, secretary-treasurer.

Medical College of Virginia News.

Dr. A. J. Carlson, Emeritus Professor of Physiology at the University of Chicago, spoke on January 8th on the subject "Some Obstacles in the Path Toward an Optimum Diet for Man". This was the eighth annual lecture at the college sponsored by Phi Beta Pi, an honorary medical fraternity.

A course in Elementary Electrocardiography will be offered by the Department of Continuation Education of the College from February 9 to 13, according to Dr. Charles M. Caravati, Director of the Department of Continuation Education and Assistant Professor of Clinical Medicine. The course will consist of didactic lectures and demonstrations dealing with the basic principles and practical applications of electrocardiography with some sessions devoted to exercises in the interpretation of tracings.

The MCV Ex-Interne Association which was discontinued during the War will be revived as an organization in the near future, according to Mr. C. P. Cardwell, Jr., Director of the College Hospitals. It is expected that around April a get-together meeting will be held but there will be a definite announcement later. In the meantime all members are requested to notify Mr. Cardwell of any change of address since the Association last met.

Dr. Perrin H. Long Professor of Preventive Medicine at Johns Hopkins University, delivered the first Lewis T. Stoneburner III, Lecture in Internal Medicine at the College on January 30th. His subject was "The Choice of Sulfonamides and Antibiotic Agents in the Treatment of Infections". This Lecture was established at the College by friends of the late Captain Stoneburner, who were members of the 45th General Hospital Division with him during World War II. Dr. Long, under whom Dr. Stoneburner served in North Africa during the War, has made outstanding contributions in investigative work in connection with the development of the sulfonamides. He was awarded the Gold Medal of the Southern Medical Association in 1942 for his outstanding work in chemotherapy.

Dr. Nathan Bloom, Associate Professor of Medicine, and Dr. Reno Porter, Associate in Medicine, at the Medical College of Virginia conducted a two day symposium on cardiovascular diseases at the Veterans Administration Hospital in Roanoke on January 21 and 22.

XUM

The National Conference on Medical Service

Will be held in Chicago on February 28th. Because the program features wide-open discussions of important controversial problems affecting medical practice, hospitals and nursing, the Conference promises to be of outstanding interest to general practitioner and specialist alike, according to E. F. Sladek, M. D., Traverse City, Michigan, Secretary. Dr. Creighton Barker, New Haven, Connecticut, is President. At the morning session papers will be presented on "The Practice of Medicine by Hospitals, Health Departments and Medical Schools"; "Medical Public Relations Begins in the Doctor's Office"; and "Nursing Problems in America". The afternoon will be given over to panel presentations on General Practice and Specialty Boards, followed by discussion with general audience participation.

Married.

Dr. David C. Wilson, Jr., son of Dr. and Mrs. David C. Wilson of Charlottesville, and Miss Sally Peeples Wing of Winter Park, Florida, on January 31. Dr. Wilson is now interning at the University of Syracuse Hospital, Syracuse, N. Y.

The American Board of Ophthalmology

Announces practical examinations for 1948 to be held in Baltimore, May 20-25, and in Chicago, October 6-9. Written qualifying tests will be held annually, probably in January of each year. Applications for the January 1949 tests must be flled with the Secretary before July 1, 1948.

All communications should be addressed to the Board at Cape Cottage, Maine.

Dr. Edward V. Brush, Jr.,

Lexington, was installed as president of the Kiwanis Club of that town at its meeting on January 2nd.

Dr. F. E. Oglesby,

Formerly of Emporia, has located in Richmond where he is associated with Dr. E. E. Haddock in the general practice of medicine. Their offices are at 1133 West Franklin Street.

Dr. James A. Miller

Was elected to the Board of Control of the Winchester Exchange Club at its annual meeting in December.

Dr. H. L. Greenberg,

Class of '40, University of Virginia, Department of Medicine, is at the Boston (Mass.) City Hospital where he has received an appointment in the Department of Radiology. He expects to be there for three years.

Dr. P. W. Oden,

Recently on the staff of the Mattie Williams Hospital, Richlands, has located for practice at Oak Hill, W. Va.

This Week in Chicago Medicine.

The Chicago Medical Society has inaugurated a weekly mimeographed publication entitled "This Week in Chicago Medicine". It has been designed to keep the medical profession posted on "what's going on" and to aid out-of-town physicians who may be in Chicago and wish to visit clinics, conferences, round tables or medical meetings.

The Society is sending copies of this weekly publication to all medical libraries, medical schools and city medical societies in the country; to all Illinois hospitals as well as the hospitals of larger cities in states adjacent to Illinois for posting on bulletin boards.

Any doctor planning a trip to Chicago may secure copies of this bulletin by writing to the Chicago Medical Society, 30 North Michigan Avenue, Chicago 2 or he may secure copies by calling in person.

International Surgical Assembly.

The Sixth International Assembly of the International College of Surgeons will be held in Rome, Italy, at the invitation of the Italian Government, during the week of May 16-23, 1948, under the presidency of Professors Raffaele Bastianelli and Raffaele Paolucci of Rome, and Mario Dogliotti of Turin. The Secretary of the Assembly is Prof. Giuseppe Bendandi of Rome. Attendance is not limited to the membership of the College; all surgeons in good standing in their medical organizations are invited. Scientific meetings, scientific and commercial exhibits, visits to the Universities of Turin and Milan have been arranged, together with tours to other medical centers in Europe. A special exhibits of ancient texts on surgery is being arranged by Prof. Davide Giordano of Venice, Honorary President, under the active presidency of Prof. Adalberto Pazzini, Professor of History at the University of Rome. This extraordinary exhibit dealing with ancient surgery will be on display

in the Vallicelliana Library in one of the historical buildings of the Vatican. Detailed information may be obtained from Dr. Max Thorek, General Secretary, 850 Irving Park Road, Chicago 13. For travel information, address the All Nations Travel Bureau, 38 S. Dearborn Street, Chicago, the official travel representatives for this Assembly. Those desiring to present scientific papers address Dr. Karl Meyer, Cook County Hospital, Chicago; Dr. Henry W. Meyerding, Mayo Foundation, Rochester, Minnesota; or Dr. Herbert Acuff, Acuff Clinic, 514 W. Church Street, Knoxville, Tennessee. Those from Canada should direct their inquiries to Dr. Lyon Appleby, 925 W. Georgia Street, Vancouver, B. C.

News from the University of Virginia School of Medicine.

On November 21, 1947, Dr. Eugene Stead, Professor of Medicine at Duke University, gave the annual Phi Lambda Kappa lecture, his subject being "Edema".

A bequest of $10,000 for medical research was included in the will of the late Mrs. Lottie Antrim of Waynesboro, Virginia, as a memorial to her late daughter, Miss Mildred M. Antrim.

On January 5th, Dr. Alfred Blalock, Professor of Surgery at the Johns Hopkins University, spoke on the subject of "Pulmonic Stenosis".

A research grant of $24,800 has been received from the Cancer Control Branch of the Federal Security Agency.

On January 8th, Dr. H. B. Mulholland, Professor of Practice of Medicine, spoke on the subject, "Difficulties of Treatment of Diabetes, including Insulin Atrophies and Hypoglycemia", at the Symposium on Diabetes, held in Cleveland, Ohio. This symposium was held under the auspices of the American Diabetes Association, in connection with the interim meeting of the American Medical Association.

On January 12th, Dr. Frank L. Meleny, Associate Professor of Surgery at the College of Physicians and Surgeons of Columbia University, spoke on the subject of the "Employment of Antibiotics in the Treatment of Surgical Infections."

On January 16th, Rear Admiral Clifford A. Swanson, Surgeon General of the U. S. Navy, spoke on the subject of "Nutritional and Medical Conditions in Europe and the Near East".

Dr. Herman Laibstain

Has opened his office at 112 East Sewells Point Road, Norfolk, with practice limited to allergy. He has recently completed one year of post-graduate study at the Allergy Unit of the University of Illinois in Chicago.

Dr. John Rogers Mapp,

Recently of Charlottesville, announces the opening of his office in the Northampton Accomack Memorial Hospital, Nassawadox, where he will limit his practice to Roentgenology. He was trained at the University of Virginia Hospital and served with the 8th Evacuation Hospital during World War II.

Dr. D. F. Love,

Recently of Harman, is now located in the Witten Building, Pearisburg, where he is engaged in general practice.

Dr. Joseph M. Dixon,

Recently of Radford, is now at Washington University, St. Louis, where he is doing graduate work in ophthalmology. On July 1st, he will begin a two year appointment in ophthalmology at the University of Cincinnati and will be associated with Dr. Donald Lyle in neuro-ophthalmology.

Dr. Claude M. Lee,

Who spent the past year at St. Andrews Hospital, Wusih, Kiangsu, China, has returned to this country and is now in Alexandria where he will be associated in practice with his son-in-law, Dr. John E. Roberts.

Postgraduate Course in Diseases of the Chest.

The American College of Chest Physicians, Pennsylvania Chapter, and the Laennec Society of Philadelphia are sponsoring a postgraduate course in diseases of the chest to be held during the week of March 15-20 at the Warwick Hotel, Philadelphia, Pennsylvania.

The emphasis in this course will be placed on the newer developments in all aspects of diagnosis and treatment of diseases of the chest. The course will be limited to 30 physicians. Tuition fee is $50.00 for members, and $90.00 for non-members.

Further information may be secured at the office of the American College of Chest Physicians, 500 North Dearborn Street, Chicago 10, Illinois.

XUM

Wanted.

North Carolina Clinic which is enlarging has two openings:

Ophthalmologist-Otolaryngologist, must be well trained.

One general medical man with some experience in handling industrial cases.

Send reply to N. C. Clinic, % Virginia Medical Monthly, 1200 East Clay Street, Richmond, Virginia. (*Adv.*)

Situation Wanted.

Experienced secretary. Able to assist in general routine office work for a doctor in a small town or country practice. Address "Secretary", care this journal, 1200 East Clay Street, Richmond 19, Va. (*Adv.*)

For Sale—

Complete eye, ear, nose and throat equipment and office furniture. Address "Specialist" care Virginia Medical Monthly, 1200 East Clay Street, Richmond 19, Va. (*Adv.*)

Opportunity,

Princeton, W. Va. Completely furnished offices and operating room. Everything modern; includes long lease and all furnishings, library and equipment on terms to suit reliable purchaser. Have retired. Dr. I. T. Peters, Princeton, W. Va. (*Adv.*)

Wanted—

Young doctor to take over well established practice in rural community in Tidewater section of Virginia. General practice including obstetrics. Hospital connections. Modern fully equipped office. Available April 1. P.O. Box 273, Gloucester, Virginia. (*Adv.*)

OBITUARIES

Dr. John E. Womack,

Well known Staunton physician, died January 7th, having been taken suddenly ill at a hospital staff meeting the previous evening. He was sixty-five years of age and a graduate from the Medical College of Virginia in 1909. Dr. Womack practiced at Mt. Sidney and in West Virginia prior to locating in Staunton in 1918. He saw service in World War I, and in World War II was chairman of the medical examining board of the local selective service board. He was a member of the American Legion, a Mason, and was for a number of years secretary-treasurer of the Augusta County Medical Association. He had been a member of the Medical Society of Virginia for a number of years. His wife and several sisters survive him.

Dr. Frank Hubert Crawford,

Well known eye, ear, nose and throat specialist of Staunton, died at his home at Mount Sidney on January 14. He was seventy-four years of age and a graduate of the former College of Physicians and Surgeons of Baltimore in 1896. Shortly thereafter he located at his home in Augusta County where he practiced until 1929 when he went to Vienna for a year's study in diseases of the eye, ear, nose and throat. Upon his return he opened an office in Staunton for this line of work, in which he continued until his recent illness. His widow and a sister survive him.

Dr. Stanley Burt Ellis,

Wakefield, died on January 2nd in Petersburg. He was a native of Sussex County and sixty-six years of age. He graduated from the Medical College of Virginia in 1908 and had practiced in Wakefield for thirty-four years. Several sisters and brothers survive him.

Dr. Robert Herbert Wright,

For many years a prominent eye, ear, nose and throat specialist of Richmond, died December 22 at his home in Newton Center, Mass., to which place he moved on retiring from practice in Richmond in 1943. He was sixty-eight years of age and graduated in medicine from the University of Virginia in 1900. Surviving are two sisters and two brothers. Burial was at his former home, Petersburg, Va.

Dr. Joseph Atkinson Thomas,

Valdosta, Ga., died December 21, at his home in that place. He was a member of the class of 1908 of the former University College of Medicine, Richmond, Va., and shortly thereafter returned to his home in Valdosta for the practice of his profession.

Dr Julian L. Rawls.

We regret to announce the death of Dr. Rawls, a past president of the Medical Society of Virginia. A notice appears in the Editorial columns of this issue.